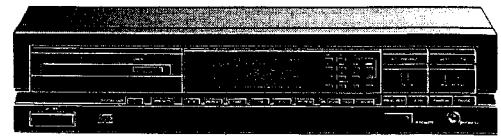
Compact disc player CD630/00R/05R/17R

Service
Service
Service



44 840 A11

Service Manual

COMPACT disc DIGITAL AUDIO

CONTENTS

1 Contents and control buttons
2 Technical specifications
Service hints
3-1 Disassembly of the cabinet and loading
3-2 Exploded view
4 Faultfinding tree
Electrical measurements and adjustments
Wiring diagram
Block diagram
5 Servo decoding panel
6 Variable line out panel
Power supply panel
7 Control and display panel
8 µP + F.T.S. panel
9 Partslist
10 Modifications

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

CLASS 1 LASER PRODUCT
3122 110 03420

(S) Varning!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

(SF) Varo!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification
4822 725 22469
Printed in The Netherlands

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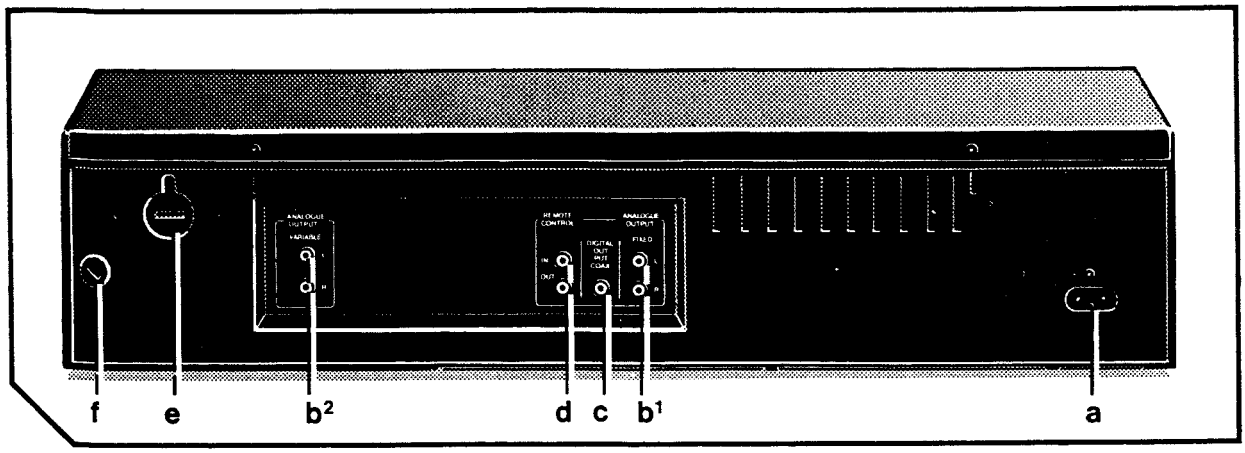
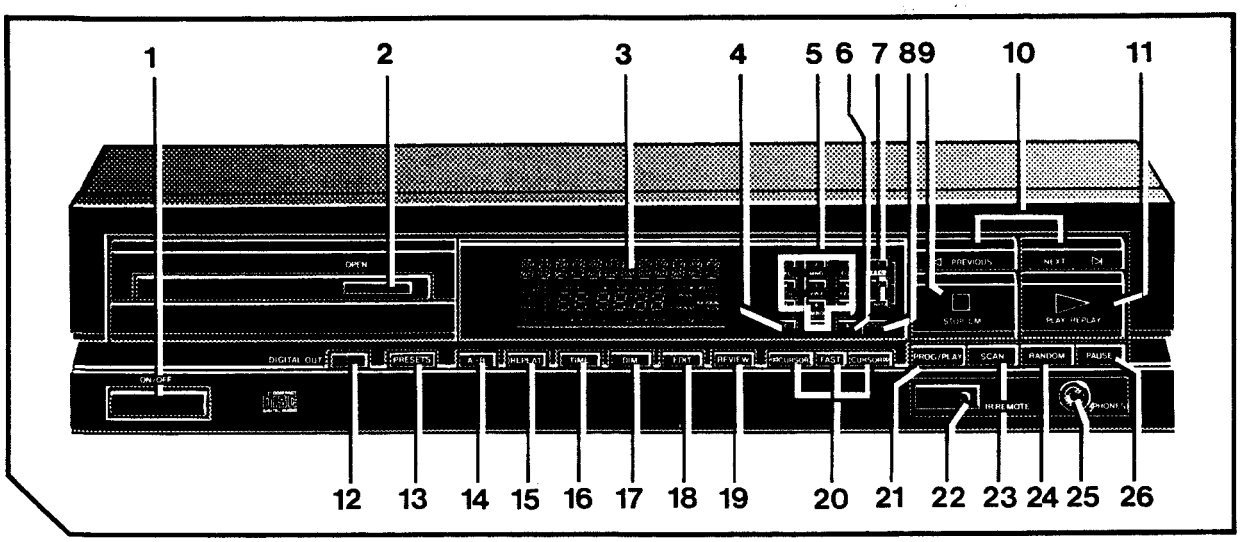
PHILIPS
Published by Service Consumer Electronics





44 840 A11

OPERATION

EXPLANATION OF KEYS

1 On/Off
2 Open
3 Display
4 C(lear)
5 Digit/alphabet keys
6 S(tore)
7 FTS
Info
8 Title
9 Stop/CM
10 Previous/next
11 Play/Replay
12 Digital out
13 Presets
14 'A–B'
15 Repeat
16 Time
17 DIM
18 Edit
19 Review
20 ◁◁ Cursor ▷▷
21 Prog(ram) play
22 IR remote
23 Scan
24 Random
25 Phones
26 Pause

CONNECTIONS

a Mains lead
b Analogue output
c Digital out coax
d Remote control In/Out
e Voltage selector
f Mains fuse holder

TECHNICAL DATA

General

1. Mains voltage	: 220, 240 Volt (+/– 10%)
2. Mains frequency	: 50-60 Hz
3. Mains voltage selection	: By soldering (220/240 Volt-version) By changing transformer (110/127 Volt-version)
4. Power consumption mains, operated	: 15 W

External RC-5 connection

Specification: V-in Low: from -2,0 V to +1,6 V
V-in High: from +3 V to +7,5 V
R-in: from 47 k to 68 k

Line output

1. Number of channels	: 2
2. Output voltage	: 2 Vrms +/– 2 dB
3. Unbalance Left-Right	: max. +/– 0,2 dB
4. Output resistance	: 200 Ohm
5. Amplitude linearity	: max. +/– 0,15 dB from 20 Hz to 20 kHz
6. Phase non-linearity	: max. +/– 1,0° from 20 Hz to 20 kHz
7. Signal to noise ratio	: min 96 dB from 20 Hz to 20 kHz
8. Dynamic range	: min 90 dB from 20 Hz to 20 kHz
9. Total harmonic distortion + noise	: min -88 dB from 20 Hz to 20 kHz
10. Intermodulation distortion	: max. 0.004% (min -88 dB) from 20 Hz to 20 kHz
11. Out-band attenuation	: min 60 dB
12. Channel separation	: min 93 dB from 20 Hz to 20 kHz
13. Muting during random access	: min 90 dB from 20 Hz to 20 kHz
14. Automatic switched de-emphasis with time constants	15/50 us

Headphone (fixed)

1. Output voltage	: Max. 2 Vrms +/– 2 dB
2. Unbalance Left-right	: Max. +/– 0,2 dB
3. Output resistance	: 150 Ohm
4. Load impedance range	: 32 Ohm to 600 Ohm
5. Output power	: Max. 6 mW into 32 Ohm load Max. 10 mW into 150 Ohm load Max. 6 mW into 600 Ohm load
6. Signal to noise ratio	: Min 93 dB from 20 Hz to 20 kHz
7. Dynamic range	: Min 90 dB from 20 Hz to 20 kHz
8. Total harmonic distortion + noise	: Min 88 dB from 20 Hz to 20kHz
9. Intermodulation distortion	: Min 88 dB from 20 Hz to 20 kHz
10. Channel separation	: min 80 dB from 20 Hz to 20 kHz

Dimensions ans weight

1. Place and height of feet acc. to Philips specification		
2. Apparatus tray closed	WxDxM	: 420 x 280 x 90/104 mm
3. Apparatus tray open	WxDxM	: 420 x 423 x 90/104 mm
4. Weight	4,0 kg	

Optical read-out system

Laser type	: Semiconductor AlGaAs
Wave length	: 780 nm ± 20nm
Light output (c.w.)	: 0,4 mW ± 0,04 mW

SERVICING HINTS

When the tray mechanism and CDM-unit has been disassembled the player can be prepared for measurements by bridging the "tray detection" switch SK2 on the main panel.

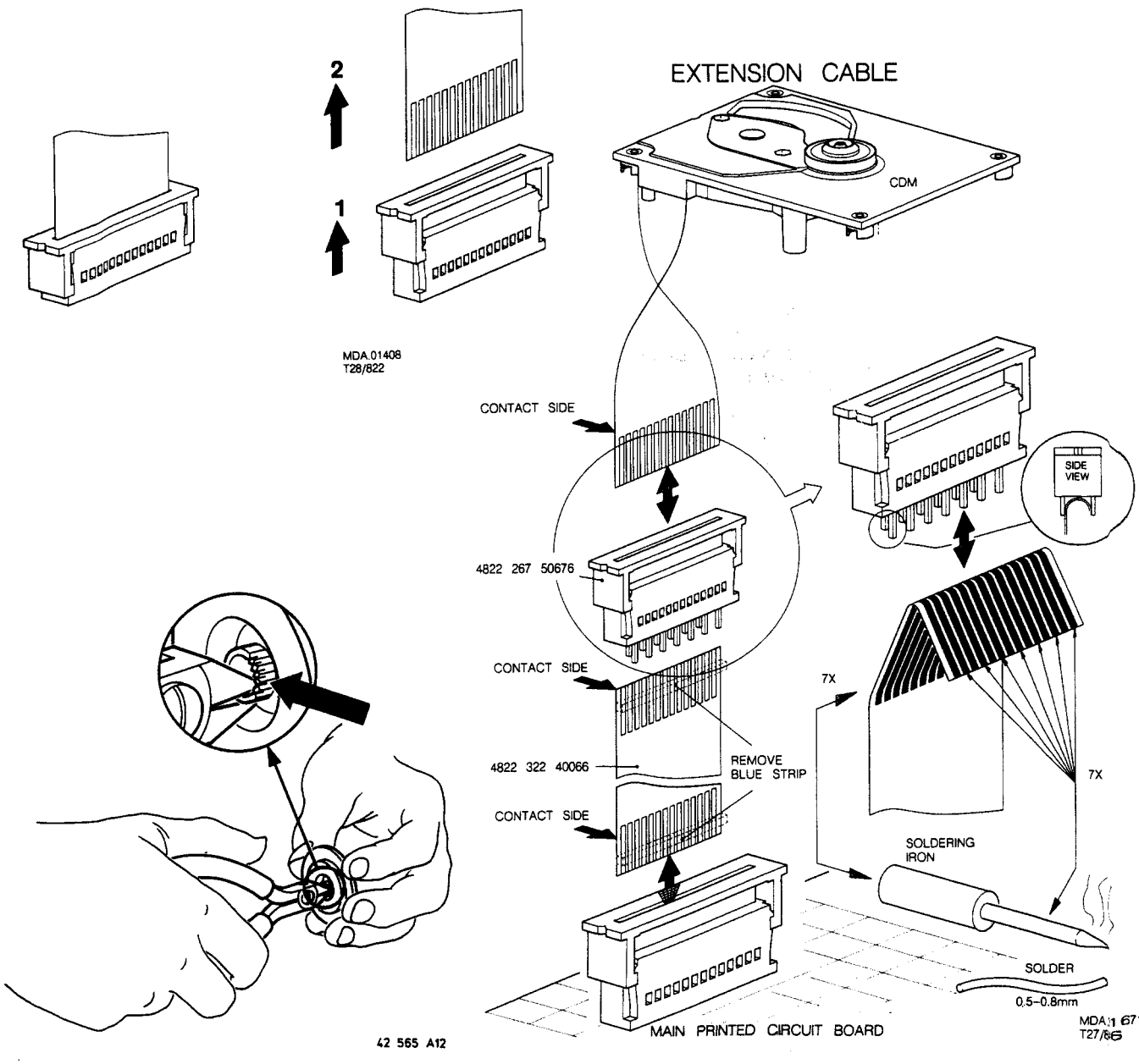
Service disc hold-down

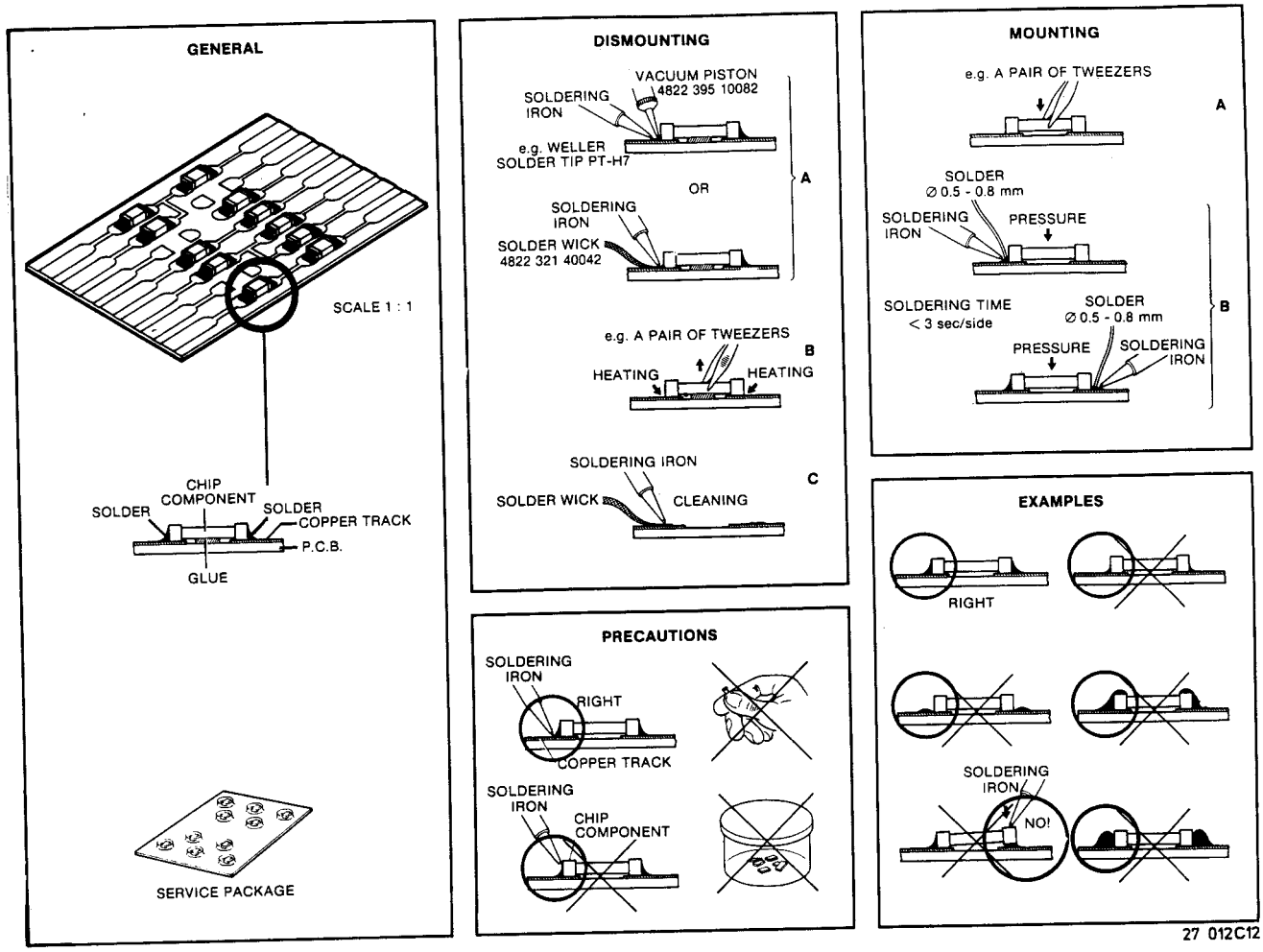
The disc should always rest properly on the turntable. To achieve this a disc hold–down has been mounted in a bracket of the tray mechanism.
If the tray mechanism has to be disassembled for servicing, a separate disc hold-down should be used. For a service disc hold–down see the figure below.
Compose a service Disc hold-down in the following way.

- Cut in the most inner ring of a disc holddown (4822 462 50383) with small and sharp nippers See fig. below.
- Enlarge the diameter of the innermost ring slightly with the hind part of a pencil or ballpoint, so that it jams onto the turntable with sufficient force.
- If the jamming force decreases after certain time of use, the diameter has to be enlarged with a pencil or ballpoint again.

SERVICE TOOLS

Audio test disc 1	4822 397 30185
Disc without errors + disc with DO errors, black spots and fingerprints	4822 397 30096
Disc (65 min, 1kHz) without pause	4822 397 30155
Maximum diameter disc	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204





GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

ESD

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

NL WAARSCHUWING

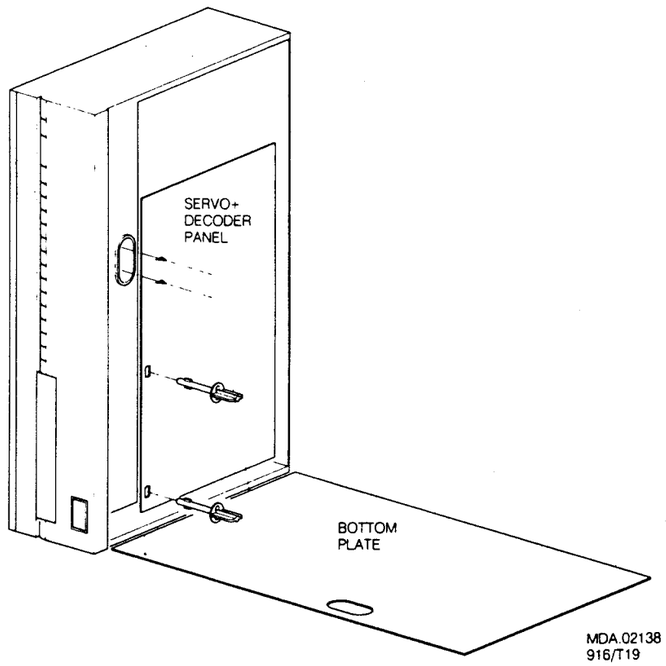
Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

DISASSEMBLY OF THE CABINET AND CDM

MEASURING AND ADJUSTMENT POSITION



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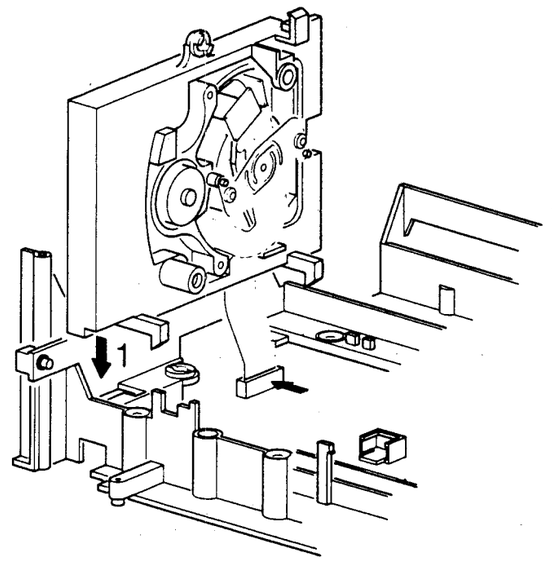
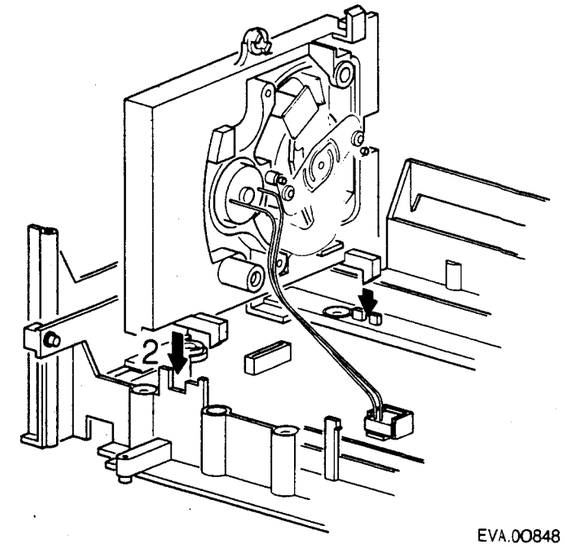
916/T19

FOIL CONNECTION POSITION



PLAY-SERVICE POSITION

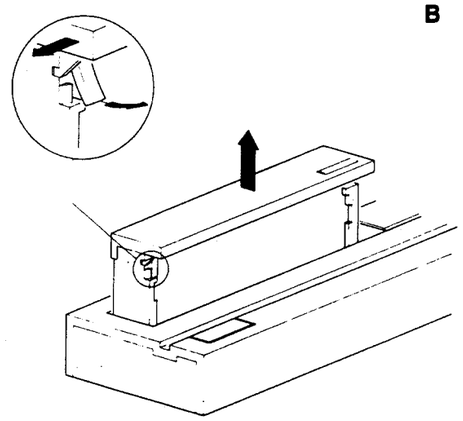


EVA.00848
916/T19

CAUTION
INVISIBLE LASER RADIATION WHEN
OPEN DO NOT STARE INTO BEAM
3104 106 75942

CABINET DISASSEMBLY HINTS

A



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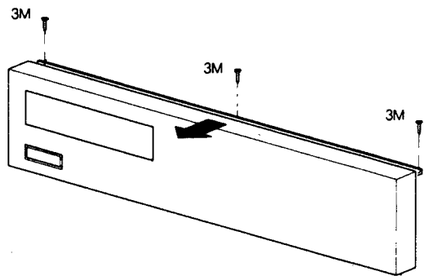

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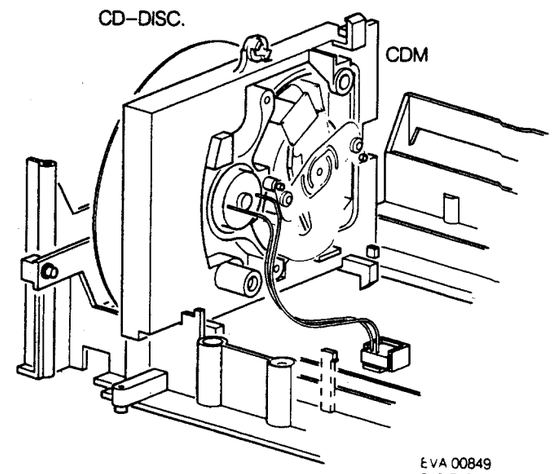
SERVICE POSITION PLAY



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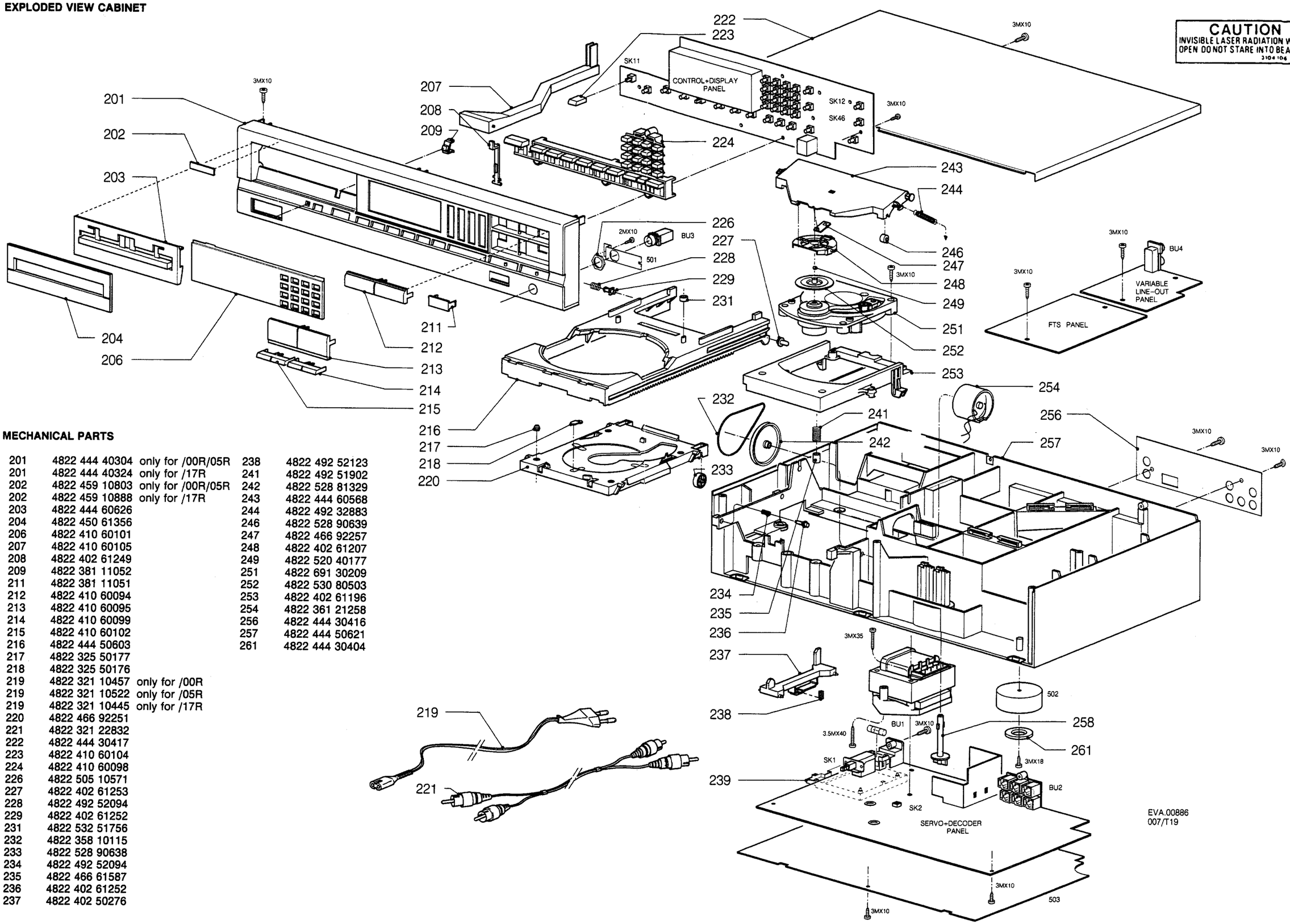
916/T19

EXPLODED VIEW CABINET



MECHANICAL PARTS

201	4822 444 40304	only for /00R/05R	238	4822 492 52123	
201	4822 444 40324	only for /17R	241	4822 492 51902	
202	4822 459 10803	only for /00R/05R	242	4822 528 81329	
202	4822 459 10888	only for /17R	243	4822 444 60568	
203	4822 444 60626		244	4822 492 32883	
204	4822 450 61356		246	4822 528 90639	
206	4822 410 60101		247	4822 466 92257	
207	4822 410 60105		248	4822 402 61207	
208	4822 402 61249		249	4822 520 40177	
209	4822 381 11052		251	4822 691 30209	
211	4822 381 11051		252	4822 530 80503	
212	4822 410 60094		253	4822 402 61196	
213	4822 410 60095		254	4822 361 21258	
214	4822 410 60099		256	4822 444 30416	
215	4822 410 60102		257	4822 444 50621	
216	4822 444 50603		261	4822 444 30404	
217	4822 325 50177				
218	4822 325 50176				
219	4822 321 10457	only for /00R			
219	4822 321 10522	only for /05R			
219	4822 321 10445	only for /17R			
220	4822 466 92251				
221	4822 321 22832				
222	4822 444 30417				
223	4822 410 60104				
224	4822 410 60098				
226	4822 505 10571				
227	4822 402 61253				
228	4822 492 52094				
229	4822 402 61252				
231	4822 532 51756				
232	4822 358 10115				
233	4822 528 90638				
234	4822 492 52094				
235	4822 466 61587				
236	4822 402 61252				
237	4822 402 50276				

MEASUREMENTS AND ADJUSTMENTS

TROUBLE SHOOTING (FAULT FINDING TREE)

Follow the path of the faultfinding tree beginning at the top left. Perform the actions you come across in the various blocks.
Look at the various side branches to find out if the information you see there applies to your problem. If, for instance, you find the indication "display" this means that no picture appears on the display.

If you establish this fault, follow the branch and perform the recommended actions. Check the signals mentioned. In a number of branches further reference is made to measurements you could carry out.
These measurements are explained in several tables further on in this manual.

MDA.02221
T-08 927

B-3 CHECK OF THE PHOTODIODES

Step	Signal	Mode	◇	∠	▭	⎍	Remarks
1	D2 D1 D3 D4	power on	4 6 7 8	–	–	signal 4E6E7E8	Signal depends on Distance lens ⟷ IR LED of remote control

T-22407A

B4
CHECK OF LASER SUPPLY (WITH DEMOUNTED CDM AND ADDITIONAL CIRCUIT)

STEP	SIGNAL	MODE	◇	∠	⎍	▭	REMARKS
1	LO	SERV. POS. 2	9 V	–	1.8<V<2.3	–	SI=1 21 A K 330 GREEN LED to LO to LM 180 LITTLE LIGHT SK to ⊥ CONNECTED DIRECTLY TO PANEL
	LM	SK	11 V	–	170<mV<220	–	
2	LO	SERV. POS. 2	9 V	–	1.8<V<2.3	–	SI=1 21 A K 330 GREEN LED to LO to LM 180 LITTLE LIGHT SK to ⊥ CONNECTED DIRECTLY TO PANEL
	LM	SK	11 V	–	170<mV<220	–	
3	LO	POWER ON	9 V	–	0V ± 0.2V	–	A K NO LIGHT SI=0 21

During the change over from SK closed to SK open, the LED will emit more light for a short moment.

MDA.01379
T-08 824

B-4 LASER CURRENT ADJUSTMENT

STEP	SIGNAL	MODE	◇	∠	▭	⎍	REMARKS
1	--	POWER OFF	--	--	--	--	CHECK IF FLEX-FOIL IS PROPERLY CONNECTED
2	--	POWER OFF	11 Ω	R3520	1kΩ +10% −0	--	PRE ADJUSTMENT OHMIC VALUE
3	--	POWER OFF	--	R3569	--	--	SET TO MID-POSITION
4	LASER CURRENT ≡ VOLTAGE ACROSS R3501	TEST DISC 5A PLAY	1 V 2 mV DC	--	⩾15mV	--	IF < 15mV THEN GO TO STEP 3 AND SET R3569 TO 1/4 OR 3/4. TRY AGAIN
5	LASER CURRENT ≡ VOLTAGE ACROSS R3501	TEST DISC 5A PLAY	1 V 2 mV DC	R3520	50mV	--	--
6	FE-LAG	TEST DISC 5A TRACK 1 PLAY	27 V mV DC	R3569	400mV	--	FINE ADJUSTMENT

MDA.02407
T-08 948

B5
ADJUSTMENT OF FOCUS-OFFSET

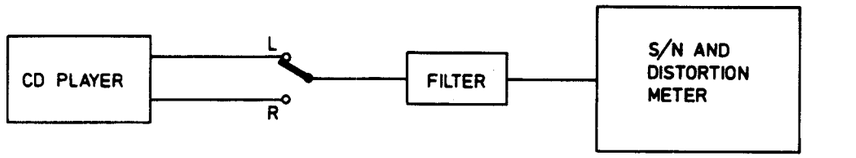
STEP	SIGNAL	MODE	◇	∠	▭	⎍	REMARKS
1	–	POWER ON	–	R3569	–	–	ADJUST FOR PHYSICAL MID-POSITION
2	FE LAG	PLAY TEST DISC 5 TRACK 1	27	R3569	400mV ±40mV DC	–	FINE ADJUSTMENT

MDA.01381
T-08 824

SPECIFICATIONS MEASUREMENT

Signal	Mode	◇	▭	▯	Remarks
BU2-L	Test disc 3, play total harmonic distorsion	filter output	See spec.		See drawing 30459A12
BU2-R	Test disc 3, play total harmonic distorsion	filter output	See spec.		See drawing 30459A12
BU2-L	Test disc 3, play signal-to-noise ratio	filter output	See spec.		See drawing 30459A12
BU2-R	Test disc 3, play signal-to-noise ratio	filter output	See spec.		See drawing 30459A12

T-22255O



e.g. SOUND TECHNOLOGY ST 1700B

30 459 A12

ERROR CODE TABLE

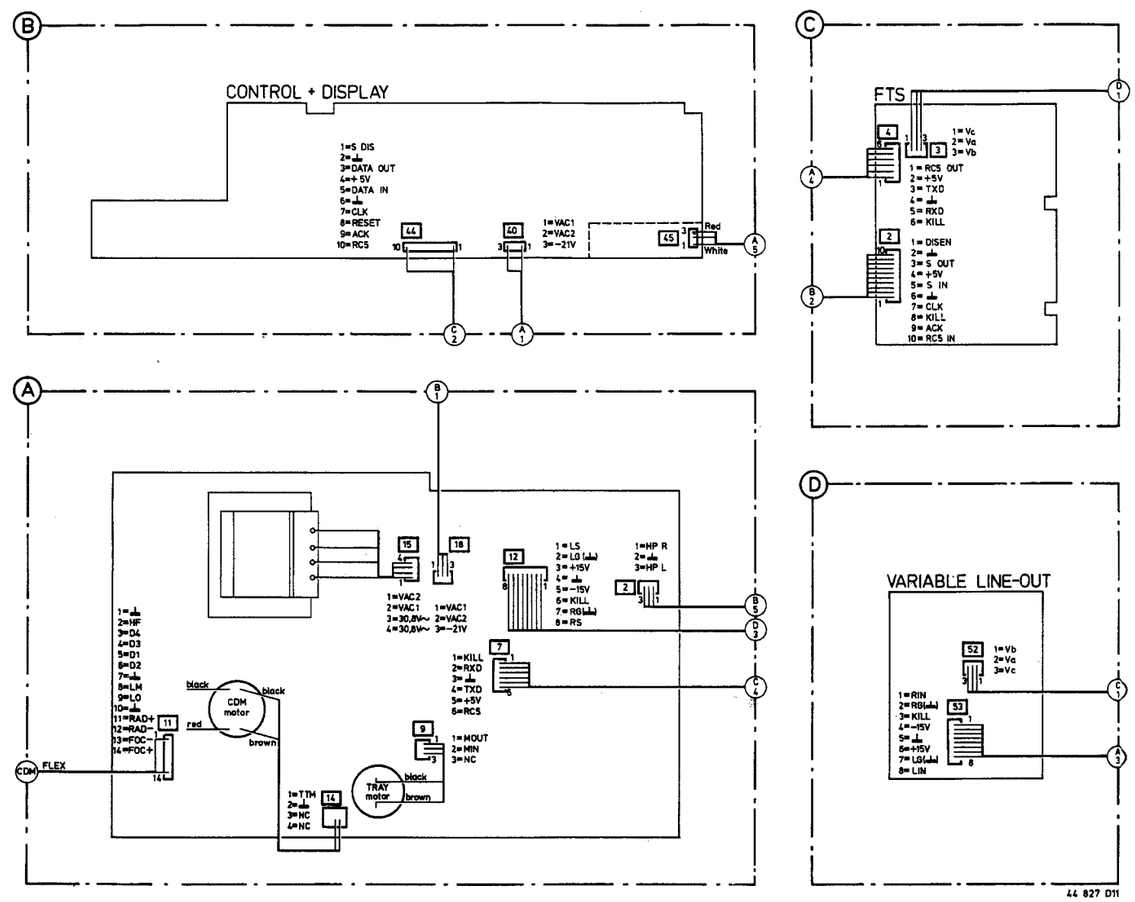
SYSTEM ERRORS

ERROR 01 Tray error
ERROR 02 Focus error
ERROR 03 Radial error
ERROR 04 Too many TL
ERROR 05 TL low to long
ERROR 06 Jump error
ERROR 07 Subcode error
ERROR 08 TOC error

OPERATING ERRORS

ERROR 10 Selected track not accessible
ERROR 11 Relative time not accessible
ERROR 12 Absolute time not accessible
ERROR 30 Next operated during last track without repeat
ERROR 31 Previous operated during last track without repeat
ERROR 42 Selected track does not exist

WIRING DIAGRAM



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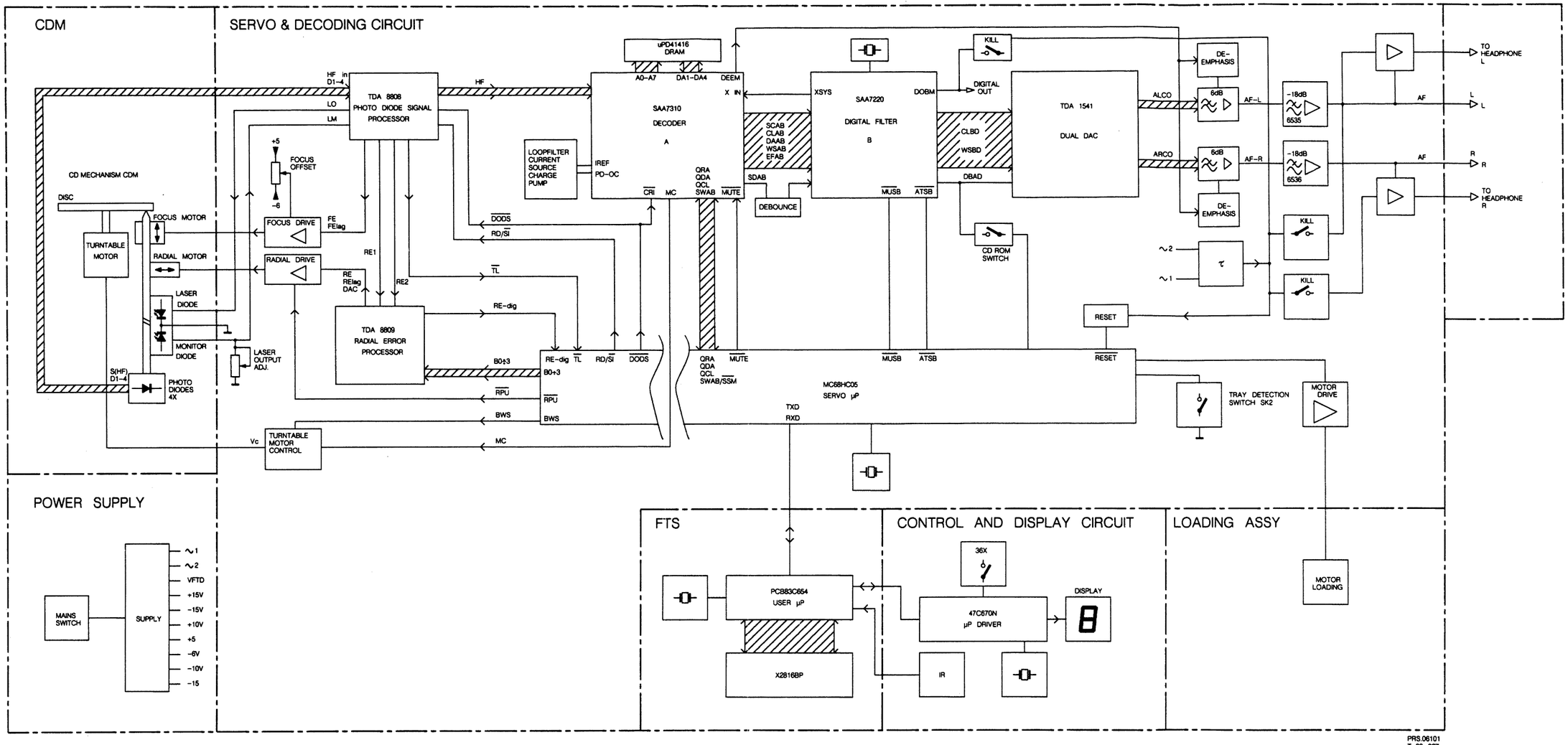
BLOCK DIAGRAM

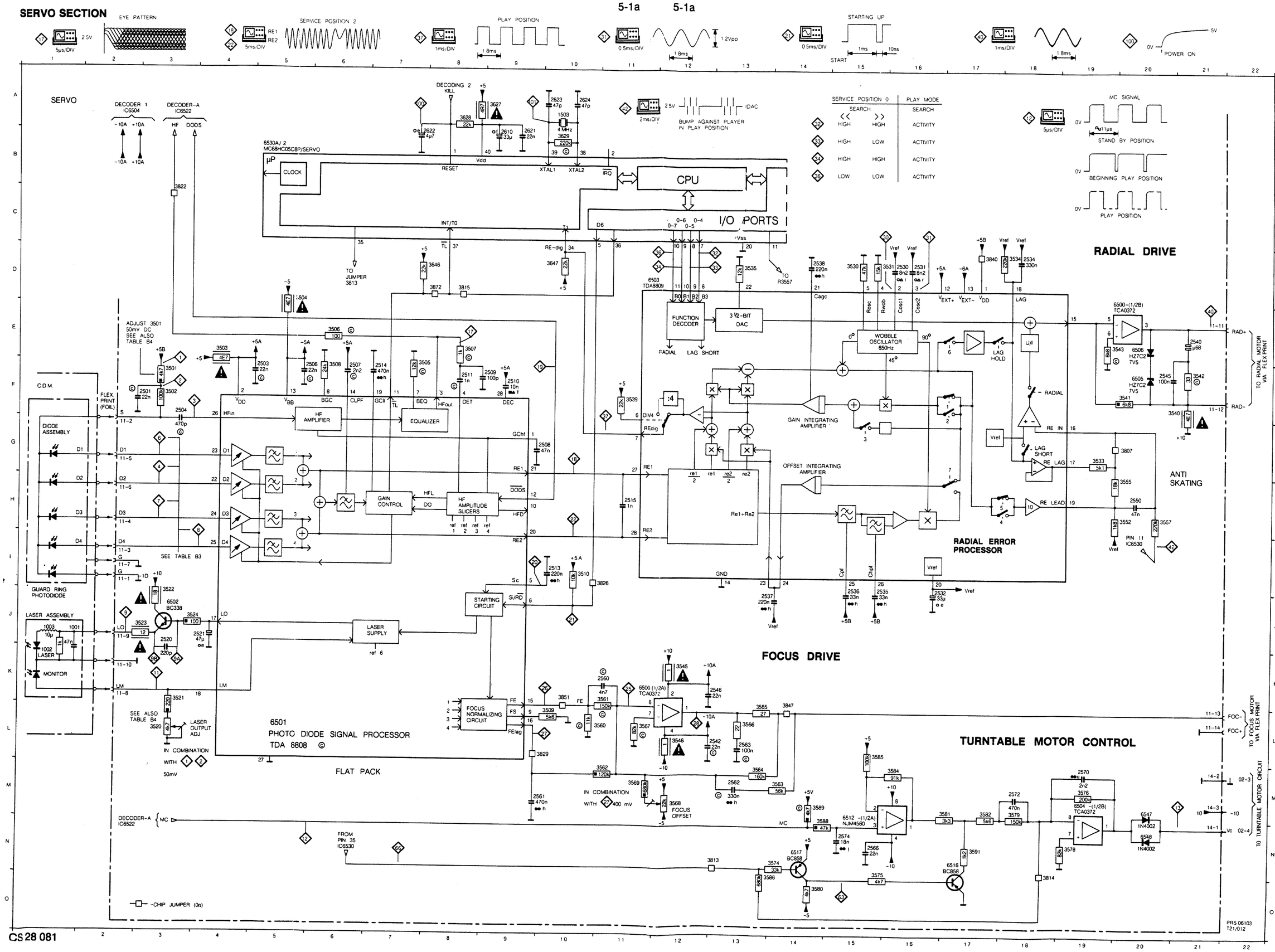


PRS.06101
T-08 927

AGC	–	Automatic Gain Control
B0-B3	–	Control bits for radial circuit
BEQ	–	Equalizer reference current input
BGC	–	DC and LF gain control reference input
Cosc1	–	Capacitor wobble oscillator
Cosc2	–	Capacitor wobble oscillator
DEC	–	Decoupling input internal bypass
DET	–	HF detector voltage input
DIV4	–	Divide by 4 input
$\overline{DODS}$	–	Drop out detector suppression
D1+4	–	Photodiode currents
FE	–	Focus error signal
FE lag	–	Focus error signal for LAG network
HF	–	HF output for DEMOD
HFD	–	HF detector output for DEMOD
HF-in	–	HF current input to HF amplifier
HF-out	–	HF amplifier and equalizer voltage output
LM	–	Laser monitor diode input
LO	–	Laser amplifier current output
MC	–	Motor control signal
offset IN	–	Offset control input
offset OUT	–	Offset control output
PLLH	–	PLL on hold output
RADout	–	output of RE2-RE1 input
RE	–	Radial error signal (Amplified RE_2-RE_1 currents)
Rosc	–	Resistor wobble oscillator
Rwob	–	Wobble generator input
RE1	–	Radial error signal 1 (summation of amplified currents D_3 and D_4
RE2	–	Radial error signal 2 (summation of amplified currents D_1 and D_2
RE dig	–	Radial error digital
RE lag	–	Radial error signal for LAG network
Sc	–	Starting up capacitor input
Si/$\overline{RD}$	–	On/off control for laser supply and focus circuit. Ready signal, Starting up procedure succesful.
$\overline{TL}$	–	Track loss output signal
TTM–	–	Control voltage for turntable motor
TTM+	–	Control voltage for turntable motor
Vext–	–	Supply connection
Vext+	–	Supply connection
$\overline{ATSB}$	–	Attenuation of Audio level in Search position (Cueing)
CD ROM Switch	–	Digital Data information on disc signal
CEFM	–	Clock Eight-to-Fourteen Modulator
CLAB	–	Clock signal Decoder-A to Filter-B
CLBD	–	Clock signal Filter-B to DAC
$\overline{CREF}$	–	Reference Current
$\overline{CRI}$	–	Counter Reset Inhibit
DAAB	–	Data signal Decoder-A to Filter-B
$\overline{DABD}$	–	Data signal Filter-B to DAC
$\overline{DEEM}$	–	Deemphasis
DOBM	–	Digital out signal
$\overline{EFAB}$	–	Error flag Decoder-A to Filter-B
$\overline{MUTE}$	–	Mute signal
$\overline{MUSB}$	–	Soft Mute signal
PD/OC	–	Phase detector - oscillator control
QCL	–	Q-channel Clock signal
QDA	–	Q-channel Data signal
QRA	–	Q-channel Request Aknowledge
SCAB	–	Subcode clock Decoder-A to Filter-B
SDAB	–	Subcode data Decoder-A to Filter-B
SWAB/$\overline{SSM}$	–	Subcode Word/Start-stop motor signal
WSAB	–	Word select Decoder-A to Filter-B
WSBD	–	Word Select Filter-B to DAC
XIN	–	Oscillator signal in Decoder-A
XSYS	–	Oscillator signal out Filter-B
BSW	–	Bandwidth switch turntable motor circuit

SERVO SECTION

5-1a 5-1a



1001 J1
1002 K1
1003 J1
1503 A10
2501 F2
2503 F5
2504 F3
2506 F5
2507 F6
2508 G9
2509 F8
2510 F9
2511 F8
2513 I10
2514 F7
2515 H11
2520 J3
2521 J3
2530 D16
2531 D16
2532 J16
2534 D18
2535 I15
2536 I15
2537 J13
2538 D14
2540 E21
2542 L12
2545 F20
2546 K12
2550 H20
2560 K11
2561 M9
2562 M13
2563 L13
2566 N15
2570 M19
2572 M18
2574 N15
2610 B9
2621 B9
2622 B7
2623 A10
2624 A10
3501 F3
3502 F3
3503 F4
3504 D5
3505 F7
3506 E6
3507 E8
3508 F6
3509 L10
3510 I10
3520 L3
3521 K3
3522 J3
3523 J3
3524 J3
3530 D15
3531 D15
3533 G19
3534 D18
3535 D13
3539 F11
3540 F20
3541 F20
3542 F21
3543 E19
3545 K12
3546 L12
3552 H20
3555 H20
3557 H20
3560 L10
3561 K11
3562 M11
3563 M14
3564 M13
3565 L13
3566 L13
3567 L11
3568 M12
3569 M11
3574 N14
3575 N15
3576 M19
3578 N19
3579 M18
3580 O14
3581 M17
3582 M17
3584 M16
3585 L15
3586 O13
3588 N14
3589 M14
3591 N17
3627 A9
3628 A8
3629 B10
3646 D7
3647 D10
3807 G20
3813 N13
3814 N18
3815 D8
3822 C3
3826 I11
3829 L10
3840 D17
3847 K14
3851 K10
3872 D8
6500 D19
6502 K11
6503 J3
6504 D11
6505 M19
6506 F20
6512 E20
6517 M15
6516 N17
6517 N14
6530 B5
6547 M20
6548 N20

SERVO + DECODER PANEL

2 C12	164 E11	189 E8	210 F4	236 B8	BU1 A1	2522 C7	2563 G2	2630 H11	2669 D9	2693 G7	3502 F1	3541 F1	3579 G5	3627 E5	3670 D9	3704 C8	3747 B8	3824 H6	3848 E9	6505 G1	6551 B10	6583 C6
7 E9	165 H7	189 H11	211 F9	237 F3	BU2 A8	2524 C7	2566 G7	2631 G11	2670 D11	2695 D8	3503 F4	3542 F1	3580 G4	3628 E5	3671 D11	3705 C8	3748 B7	3825 H12	3851 G1	6506 G1	6552 A6	6584 C5
9 G7	166 G4	190 G9	212 F9	240 H6	SK1 C1	2525 D7	2570 H3	2632 G10	2671 D10	2696 E11	3504 E3	3543 H1	3581 G5	3629 E6	3672 D9	3706 B10	3775 E7	3826 F6	3852 E7	6512 G6	6552 B10	6585 C5
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18 C7	172 C5	196 G8	219 C8	246 H10	2500 C1	2532 D2	2602 F7	2641 G12	2678 F10	2704 B6	3510 F2	3560 G3	3589 E7	3646 F3	3678 C8	3724 G3	3805 H3	3832 D6	3864 D8	6530 E7	6558 A7	6593 A6
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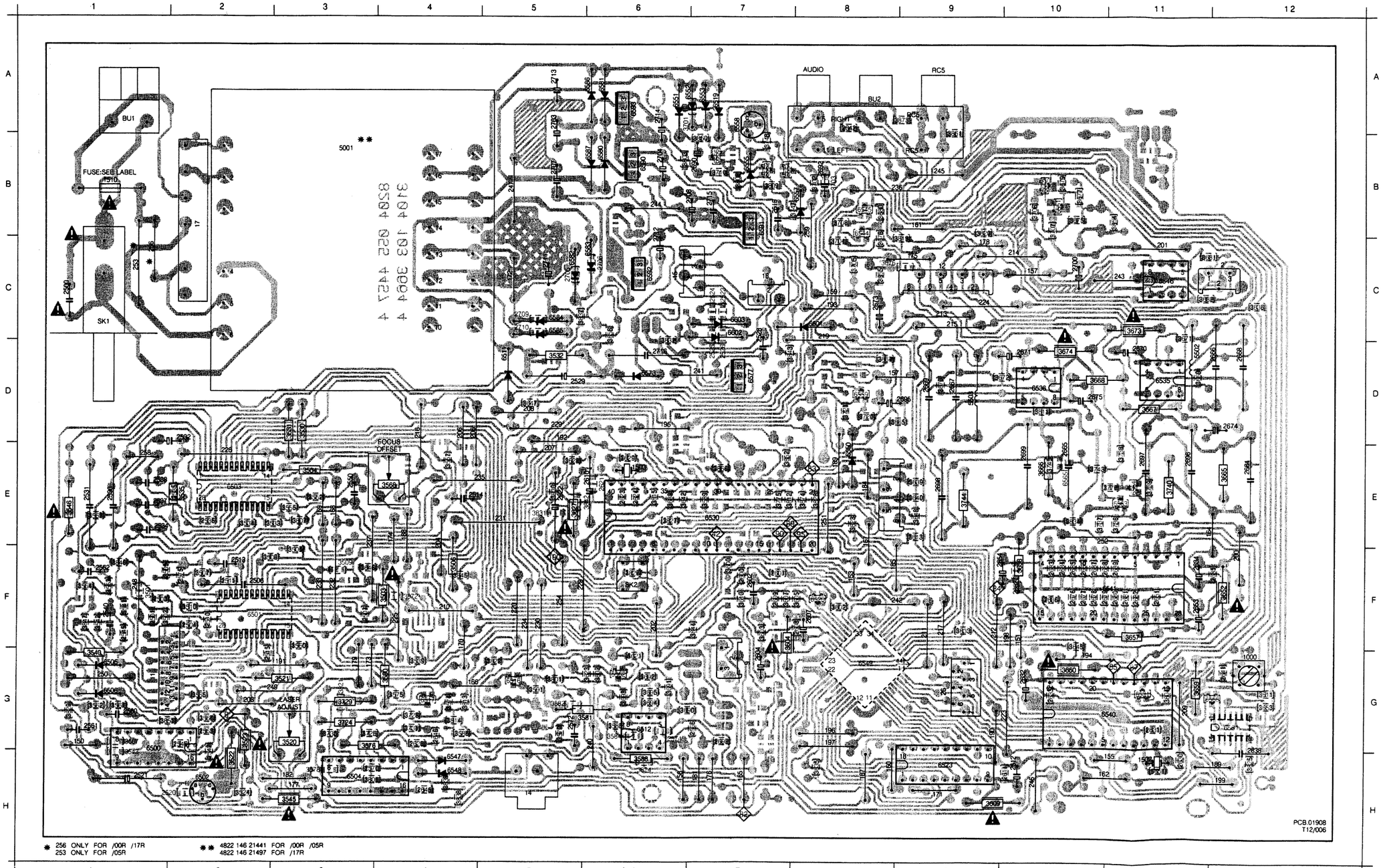
162 H10	188 F4	209 G11	235 E4	654 H4	2521 H1	2562 F1	2624 E6	2668 D12	2692 B8	3501 F1	3540 G1	3578 H3	3623 G6	3669 D11	3703 B8	3745 E10	3823 E8	3847 F1	6504 H3	6551 A6	6582 C5	



* 256 ONLY FOR /00R /17R
253 ONLY FOR /05R

** 4822 146 21441 FOR /00R /05R
4822 146 21497 FOR /17R

SERVO + DECODER PANEL

5-3a 5-3a

2 C1	161 B4	188 E9	211 F4	240 H7	1502 H2	2530 E12	2601 F6	2641 G1	2679 F3	2706 C7	3522 H11	3564 F12	3604 G6	3659 G2	3705 C5	3775 E6	3827 E7	3855 C5	6519 A6	6555 B6	6592 C7
7 E5	162 H2	189 E5	212 F4	241 D6	1503 E7	2531 E12	2602 F6	2642 A5	2680 F2	2707 B8	3523 G11	3565 G11	3605 F5	3665 E1	3706 B3	3776 E2	3828 E5	3856 D7	6520 F5	6556 B6	6593 A7
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14 H8	167 F5	193 C5	216 E9	244 B7	2503 F12	2536 E11	2609 F6	2651 F2	2684 F3	2711 C8	3532 D8	3569 E12	3611 G1	3669 D2	3720 D5	3804 G2	3832 D7	3865 D4	6535 D2	6561 G1	6603 C6
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18 C6	170 G8	196 G5	220 F8	247 B8	2507 F10	2540 F12	2612 H3	2654 F4	2687 F3	2714 A7	3535 E11	3576 G9	3628 E8	3672 D3	3725 G9	3808 B6	3835 H5	3873 A4	6540 G2	6564 E2	
26 G4	171 H4	197 G5	223 G3	248 F12	2509 F12	2542 H11	2619 B6	2664 E1	2688 F3	2715 B6	3539 G9	3578 H10	3629 E7	3673 C2	3728 G9	3809 B6	3836 C1	3874 E5	6541 F2	6565 E3	
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158 H7	182 H10	207 E8	234 F8	BU2 A5	2525 D6	2572 G8	2634 F2	2675 D3	2700 C3	3509 F10	3560 G10	3591 G8	3652 F1	3701 A7	3744 E4	3823 E5	3848 E4	6512 G7	6552 B3	6586 A8	
159 C3	184 E5	208 D8	235 E8	SK1 C12	2526 D6	2574 G7	2635 F2	2676 F3	2703 A8	3510 F11	3561 G12	3600 F6	3653 G1	3702 B5	3745 E3	3824 H7	3851 G11	6513 D5	6553 A6	6587 B8	
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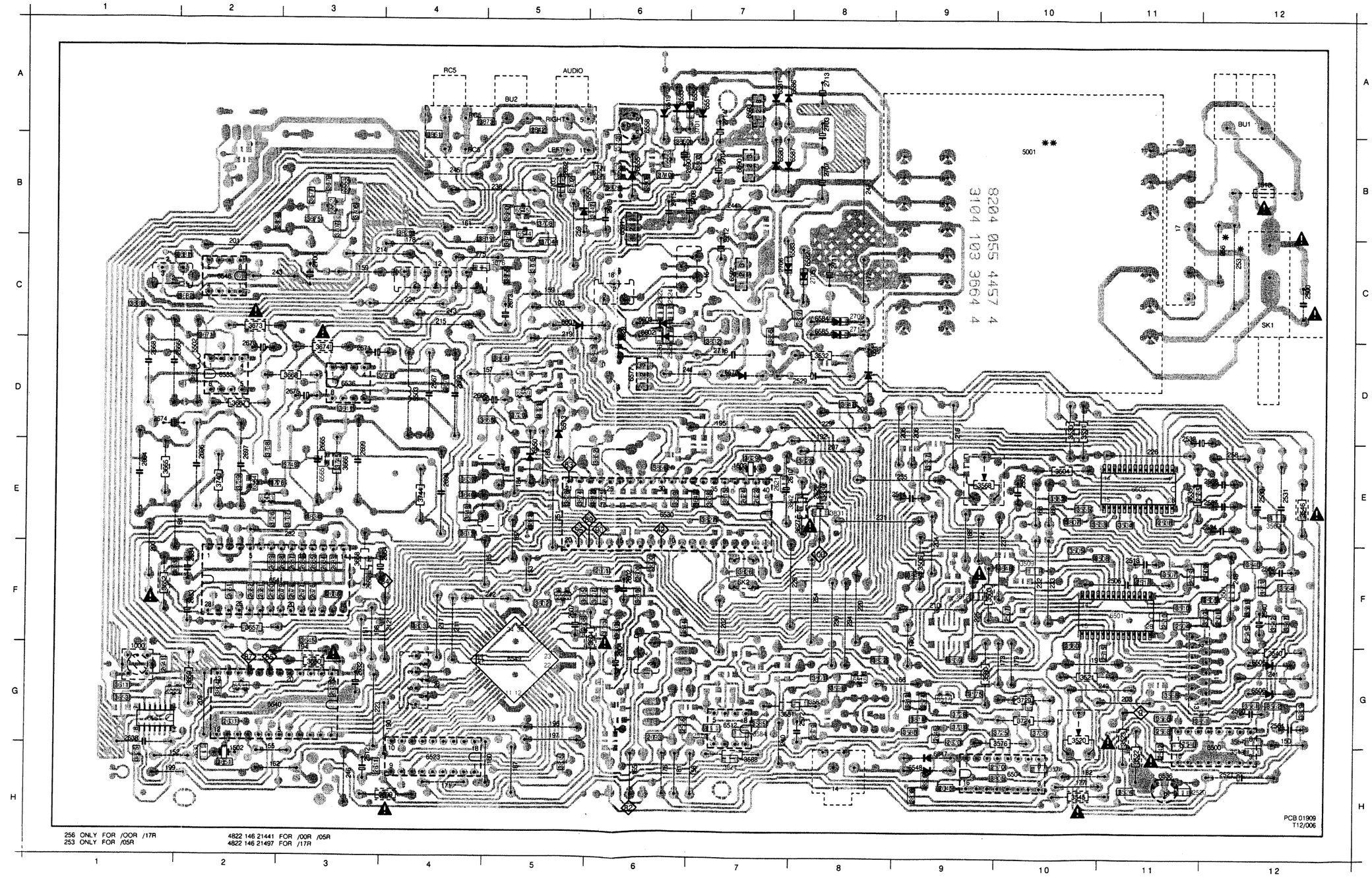
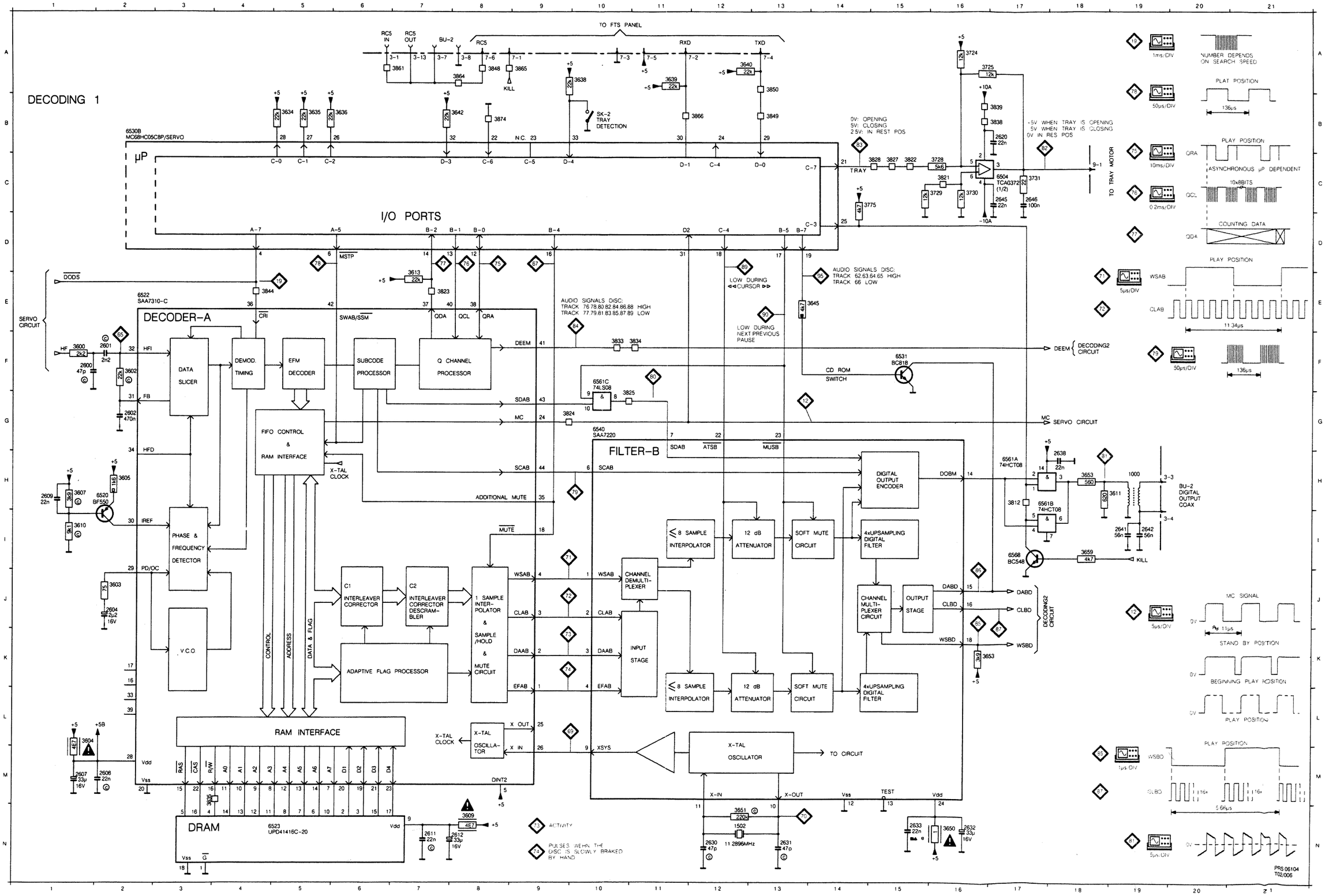


256 ONLY FOR /OOR /17R
253 ONLY FOR /05R

4822 146 21441 FOR /00R /05R
4822 146 21497 FOR /17R

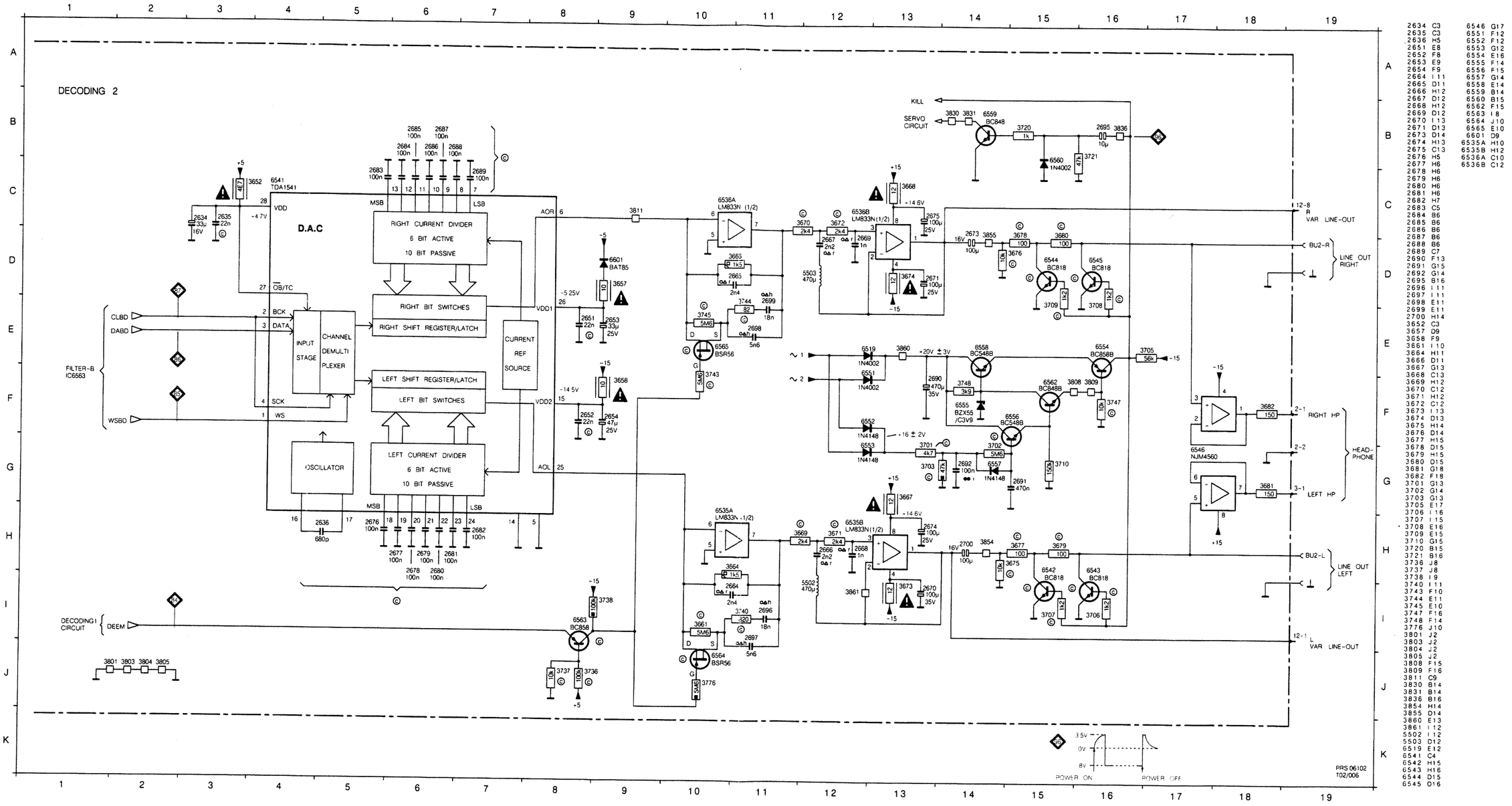
DECODING 1

1000 H19 1502 N12 2600 F1 2601 F2 | 2602 G2 2604 J2 2607 M1 2608 M2 | 2609 H1 2611 N7 2612 N8 2620 B17 | 2630 N12 2631 N13 2632 N15 2633 N15 | 2638 H18 2641 I 19 2642 I 19 2645 C17 | 2646 C17 3600 F1 3602 F2 3603 J2 | 3604 L1 3605 H2 3607 H1 3609 N8 | 3610 I 1 3611 H18 3613 E7 3634 B5 | 3635 B5 3636 B6 3638 A10 3639 A11 | 3640 A12 3642 B7 3645 E13 3650 N16 | 3651 N12 3653 H18 3653 K16 3659 I 18 | 3724 A16 3725 A16 3728 C16 3729 C15 | 3730 C16 3731 C17 3775 C14 3812 H17 | 3821 C16 3822 C15 3823 E7 3824 G9 | 3825 G10 3827 C15 3828 C15 3833 F10 | 3834 F11 3835 M3 3838 B17 3839 B17 | 3844 E4 3848 A8 3849 B13 3850 A13 | 3861 A7 3864 A8 3865 A9 3866 B12 | 3874 B8 6520 H2 6522 E2 6523 N4 | 6531 F15 6540 G10 6568 I 17 SK-2 B10 | 6530B B2 6561A H17 6561B H17 6561C F10



CS 28 084

DECODING 2



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2651 E8 6553 G12
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2654 F9 6556 F15
2664 I 11 6557 G14
2665 D11 6558 E14
2666 H12 6559 B14
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2668 H12 6562 F15
2669 D12 6563 I 8
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2673 D14 6601 D9
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2697 I 11
2698 E11
2699 E11
2700 H14
3652 C3
3657 D9
3658 F9
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3804 J2
3805 J2
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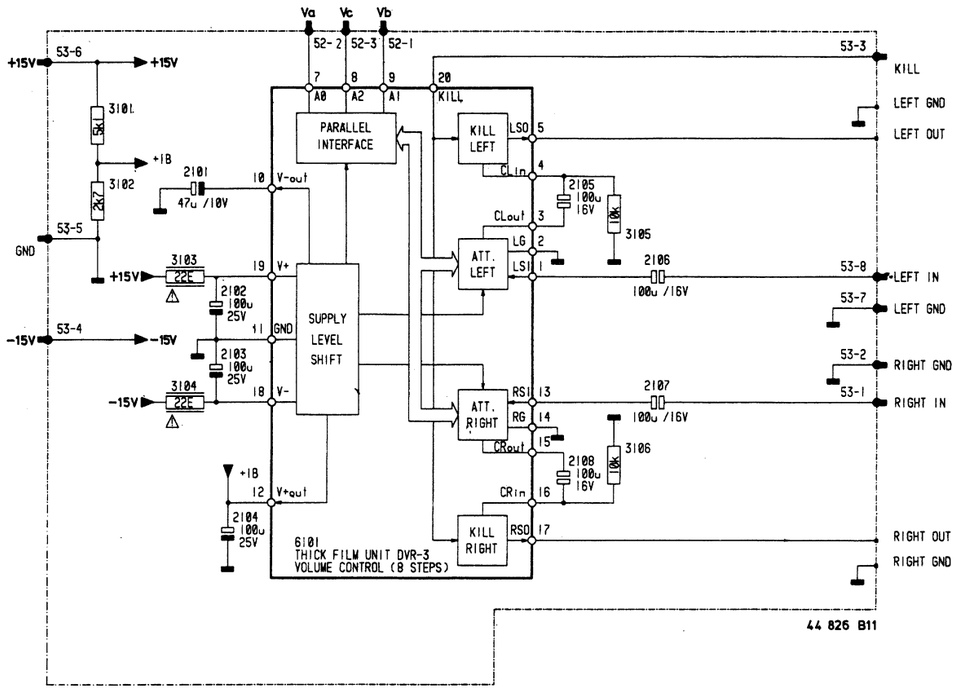
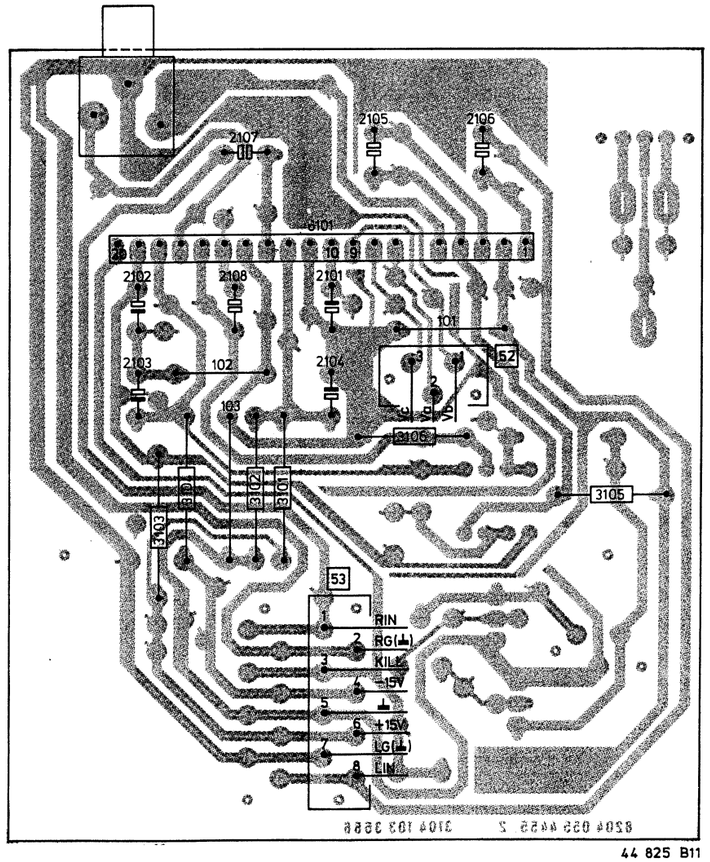
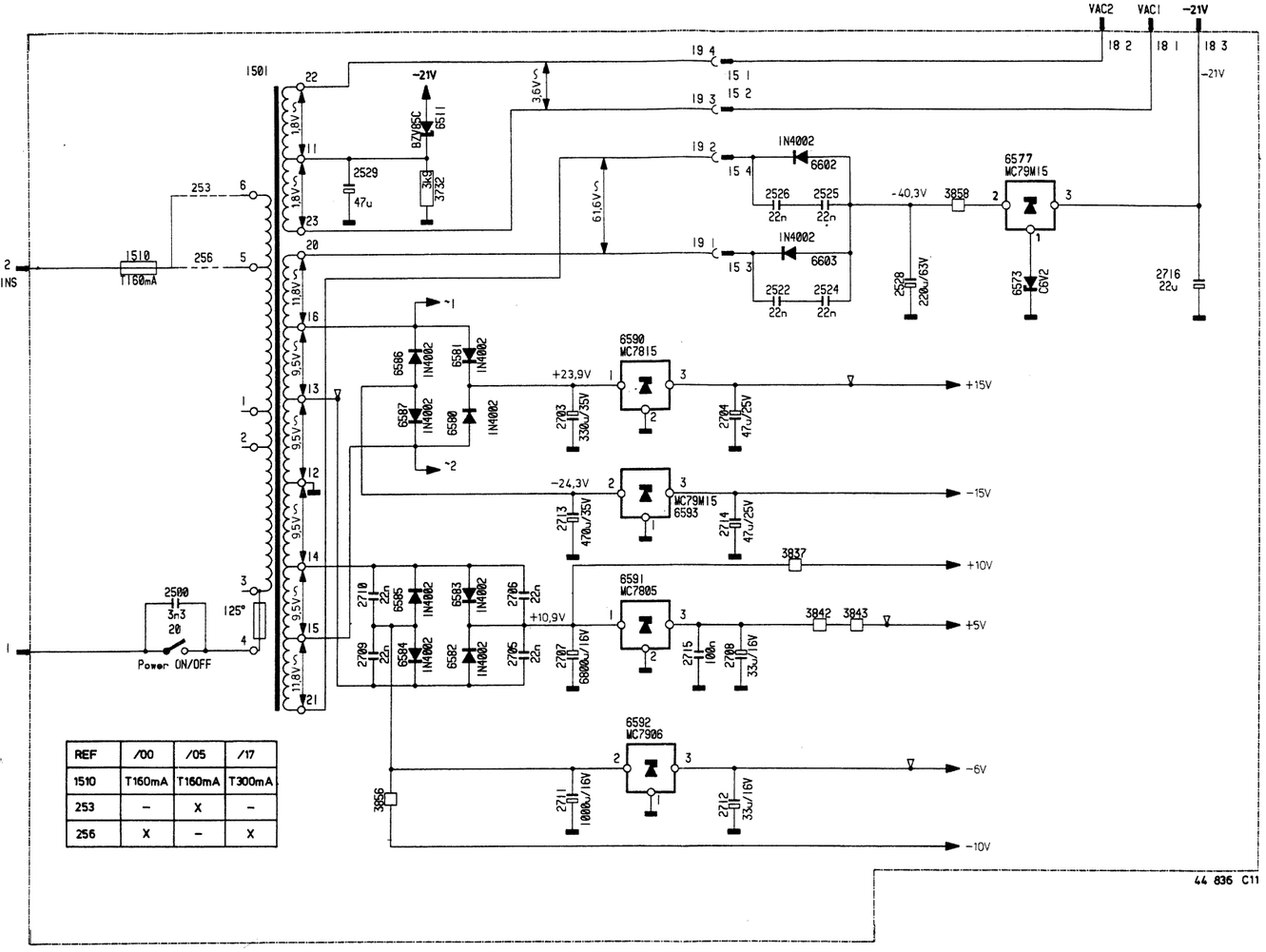


44 826 B11



44 825 B11

POWER SUPPLY



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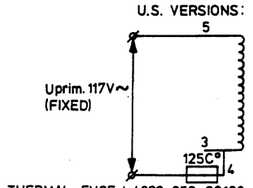
256	X	–	X

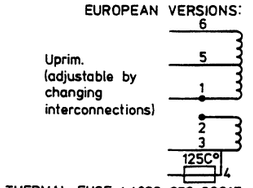
44 836 C11

U.S. VERSIONS:

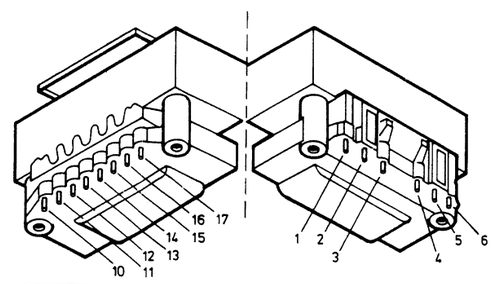


THERMAL FUSE : 4822 252 20108

EUROPEAN VERSIONS:



THERMAL FUSE : 4822 252 20017



Uprim. (V) ~	Winding	inter – connect
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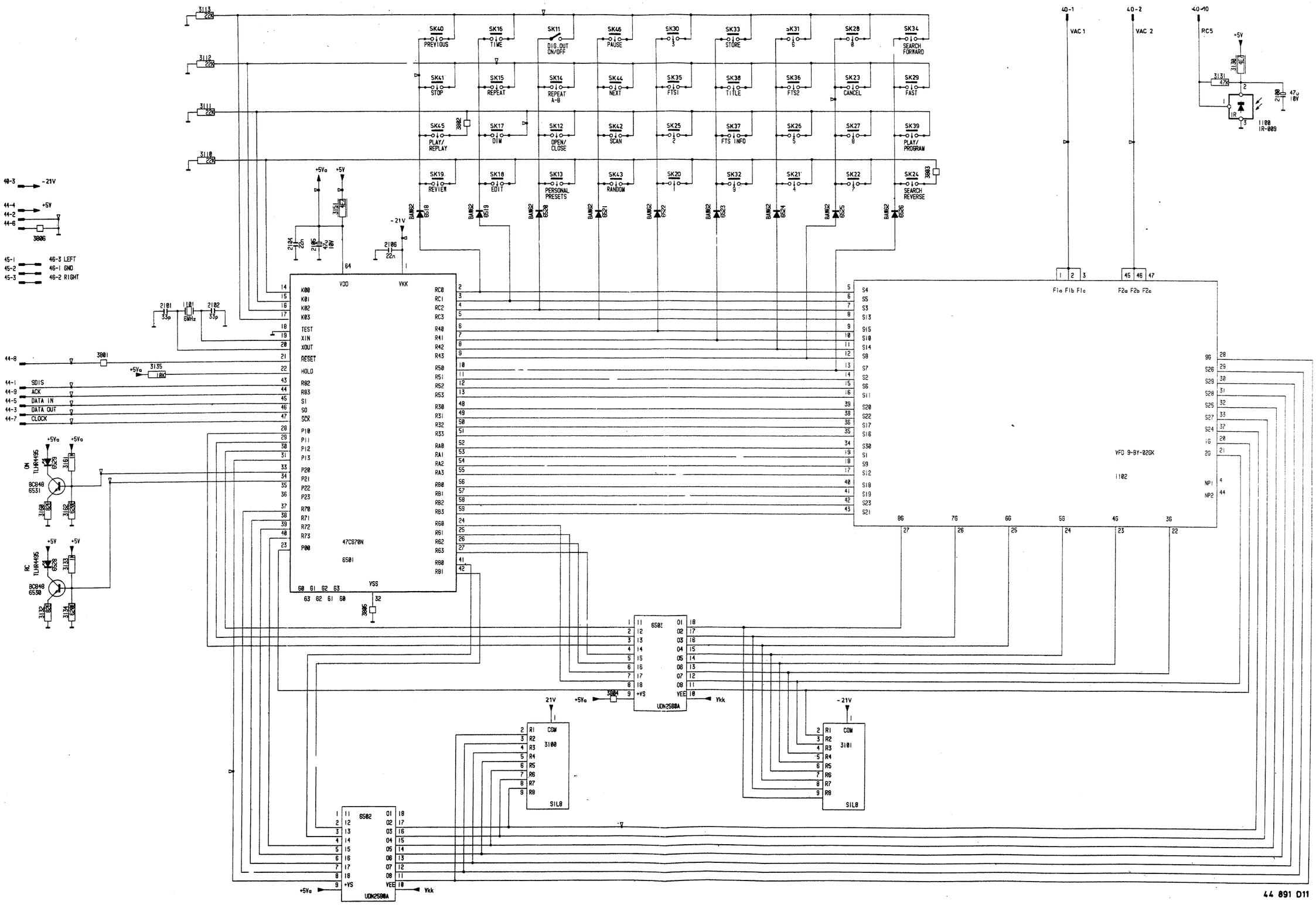
127	4 – 6	3-1/5-2
220	4 – 5	1 – 2
240	4 – 6	1 – 2

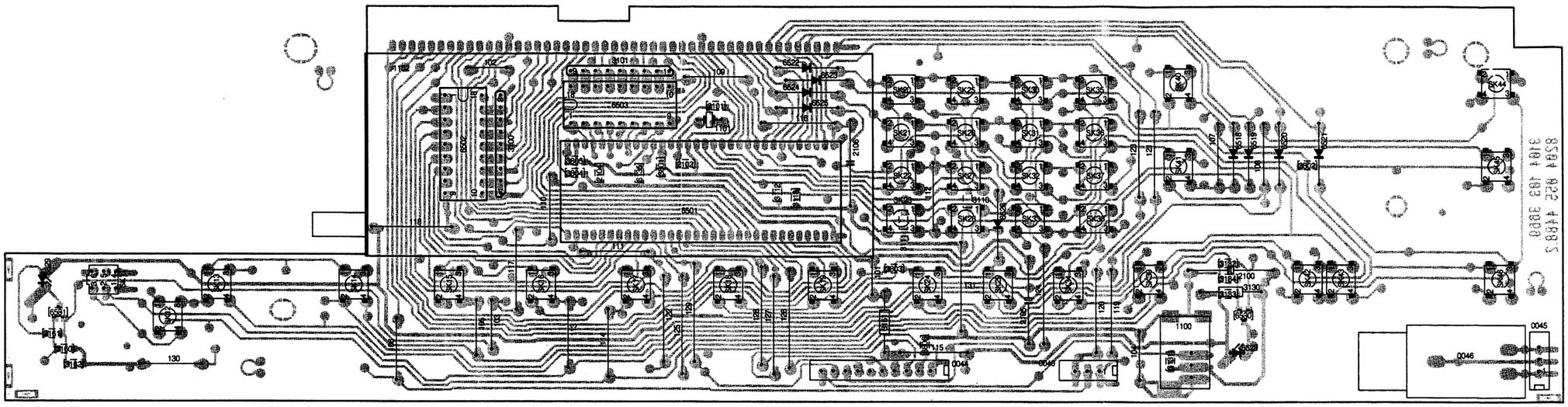
44 577 A11

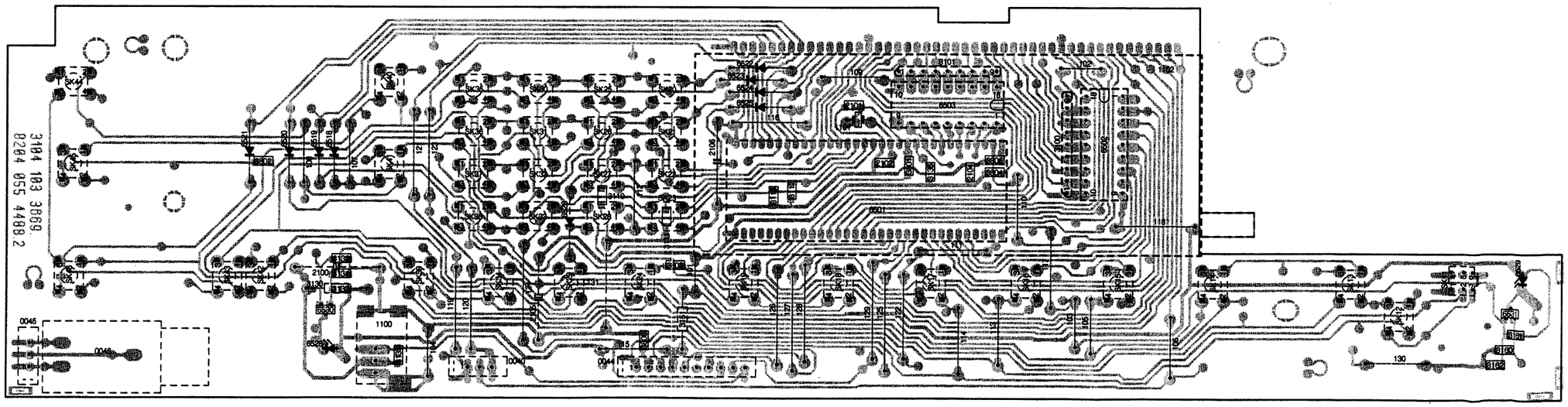
CONTROL AND DISPLAY PANEL



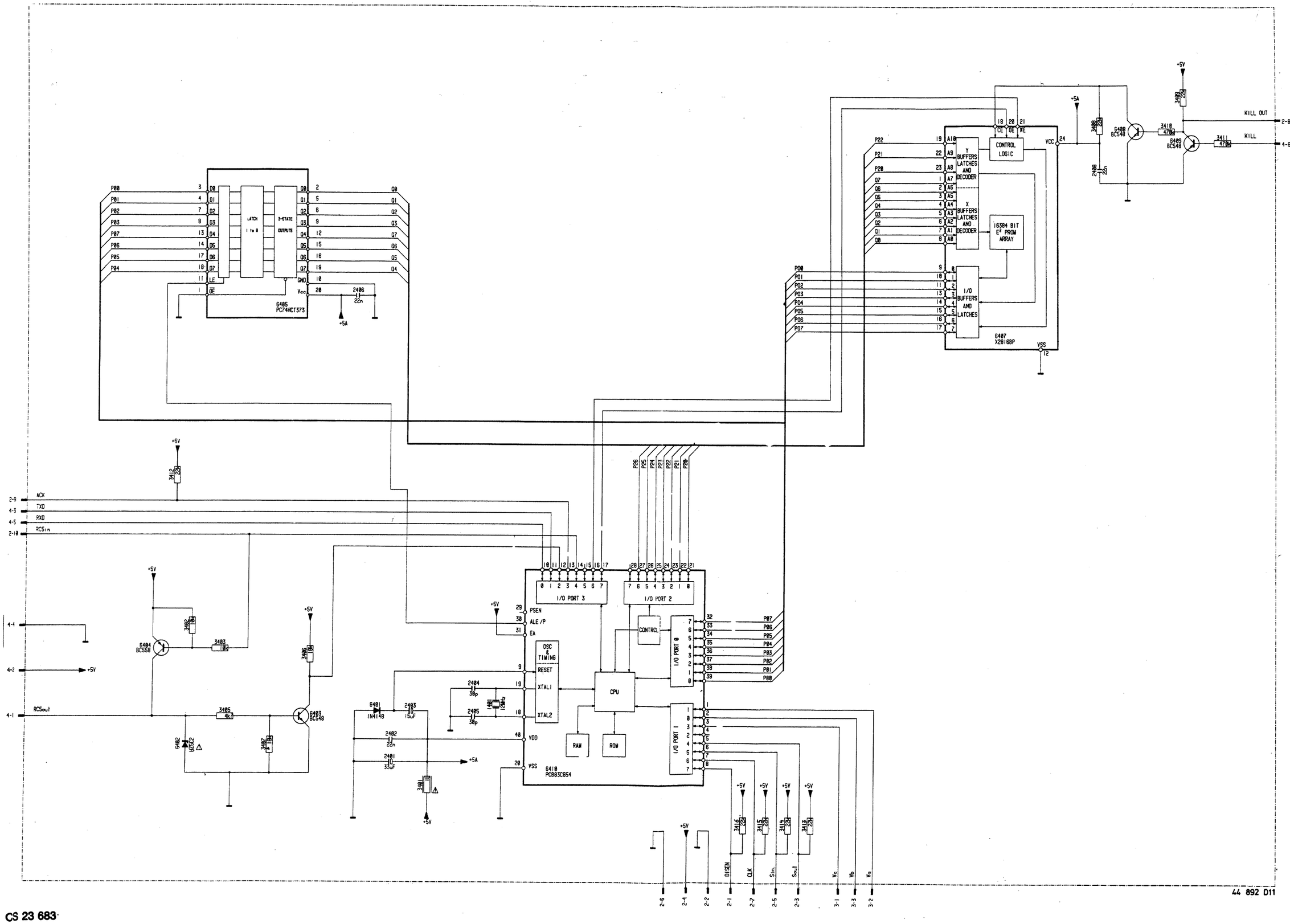
CS 23 681

CONTROL AND DISPLAY PANEL





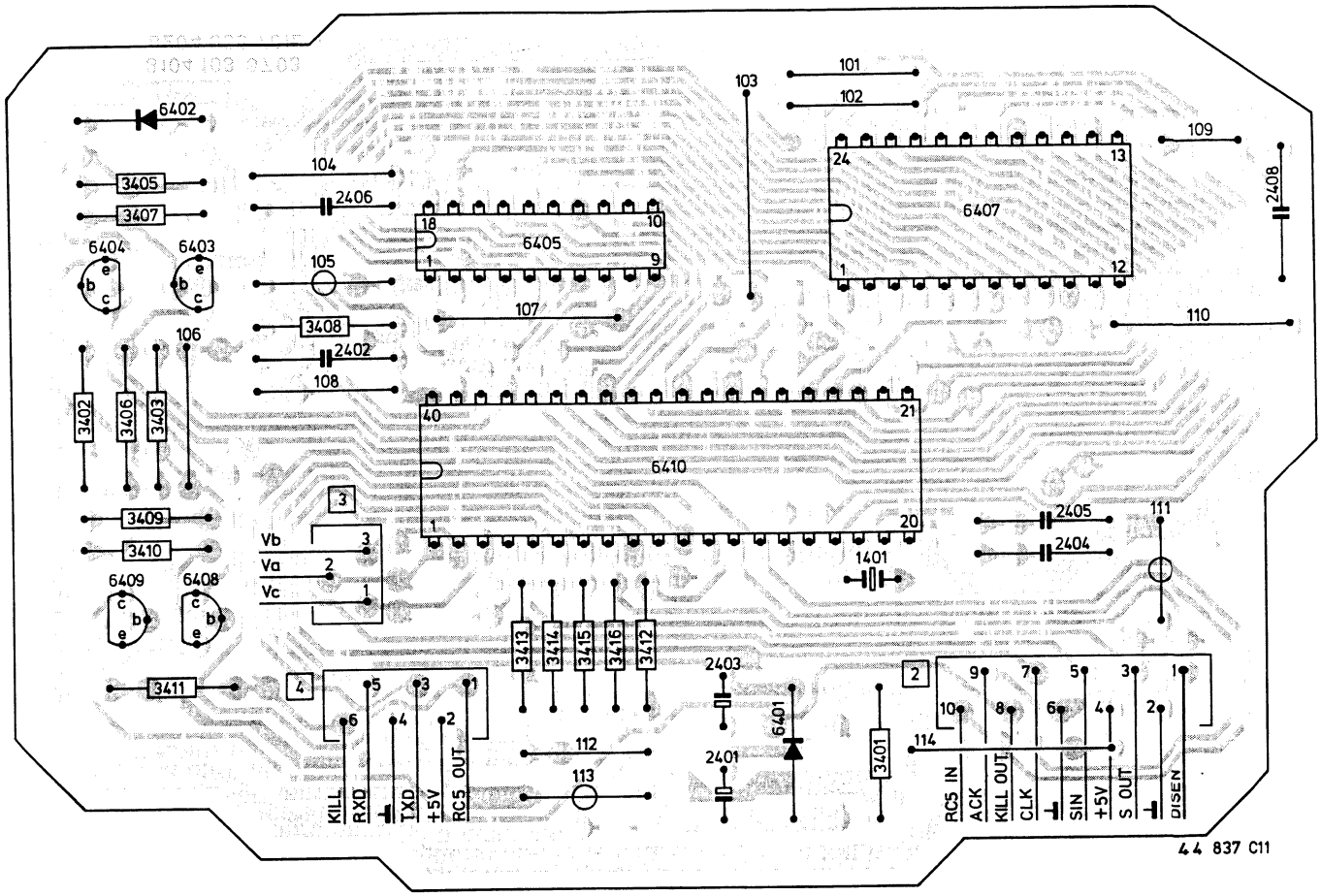
µP + FTS PANEL



44 892 D11

CS 23 683

µP + FTS PANEL


6402
3405
3407
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6403
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3402
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6410
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1401
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3414
3415
3416
3412
2403
6401
2401
3401
112
113
114
Vb
Va
Vc
KILL
RXD
TXD
+5V
RC5 OUT
RC5 IN
ACK
KILL OUT
CLK
SIN
+5V
S OUT
DISEN
44 837 C11

ELECTRICAL PARTSLIST SERVO & DECODER PANEL

Miscellaneous

BU-1	4822 265 20291	Mains inlet
BU-2	4822 267 20368	Cinch socket 5p
SK-1	4822 276 11309	Mains switch
SK-2	4822 276 12523	Tact switch
	4822 256 30274	Fuse holder
	4822 492 63076	Clamping spring

HF-transformer

1000	4822 148 80281	Transformer

Crystal

1502	4822 242 71349	Cristal 11.2896 MHz
1503	4822 242 70831	4.0MHz Ceramic Resonator

⊣⊢

2500	4822 126 10454	3,3nF 20% 400V
2501	4822 122 32863	22nF 20% 63V
2503	4822 122 32863	22nF 20% 63V
2504	4822 122 31727	470pF 5% 63V
2506	4822 122 10166	22nF 30% 16V
2507	4822 122 31644	2,2nF 10% 63V
2509	4822 122 31765	100pF 5% 50V
2510	4822 122 32442	10nF 10% 50V
2511	4822 122 31746	1nF 5% 50V
2513	4822 121 43375	220nF 10% 63V
2514	4822 121 51252	470nF 5% 100V
2515	4822 122 31746	1nF 5% 50V
2520	4822 122 31965	220pF 5% 63V
2521	5322 124 21643	22µF 20% 40V
2522	4822 122 32863	22nF 20% 63V
2524	4822 122 32863	22nF 20% 63V
2525	4822 122 32863	22nF 20% 63V
2526	4822 122 32863	22nF 20% 63V
2528	4822 124 41799	220µF 20% 63V
2529	4822 124 22027	47µF 20% 25V
2530	4822 121 51321	8,2nF 1% 63V
2531	4822 121 51321	8,2nF 1% 63V
2532	4822 124 40272	33µF 20% 16V
2534	5322 121 42661	330nF 5% 63V
2535	5322 122 31981	33nF 10% 63V
2536	5322 122 31981	33nF 10% 63V
2537	4822 121 43375	220nF 10% 63V
2538	4822 121 43375	220nF 10% 63V
2540	4822 124 41583	0,68µF 20% 50V
2542	4822 122 32863	22nF 20% 63V
2545	4822 122 33104	100nF 10% 63V
2546	4822 122 32863	22nF 20% 63V
2550	4822 121 42491	47nF 5% 100V
2560	4822 121 51314	4,7nF 5% 50V
2561	4822 121 51252	470nF 5% 63V
2562	5322 121 42661	330nF 5% 63V
2563	4822 122 33104	100nF 10% 63V
2566	4822 122 32863	22nF 20% 63V
2570	4822 122 31644	2,2nF 10% 63V
2572	5322 121 42661	330nF 5% 63V
2574	4822 122 31759	18nF 10% 63V
2575	4822 122 32542	47nF 10% 63V

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2600	4822 122 31772	47pF 5% 50V
2601	4822 122 31644	2,2nF 10% 63V
2602	4822 121 51252	470nF 5% 63V
2604	4822 124 41576	2,2µF 20% 50V
2607	4822 124 40272	33µF 20% 16V
2608	4822 122 32863	22nF 20% 63V
2609	4822 122 32863	22nF 20% 63V
2610	4822 124 20688	33µF 50% 16V
2611	4822 122 32863	22nF 20% 63V
2612	4822 124 40272	33µF 20% 16V
2620	4822 122 32863	22nF 20% 63V
2621	4822 122 32863	22nF 20% 63V
2622	4822 124 22031	4,7µF 20% 63V
2623	4822 122 31772	47pF 5% 50V
2624	4822 122 31772	47pF 5% 50V
2630	4822 122 31772	47pF 5% 50V
2631	4822 122 31772	47pF 5% 50V
2632	4822 124 40272	33µ 20% 16V
2633	4822 122 32863	22nF 20% 63V
2634	4822 124 40272	33µF 20% 16V
2635	4822 122 32863	22nF 20% 63V
2636	4822 122 31775	680pF 5% 50V
2638	4822 122 10166	22nF 30% 16V
2641	4822 122 32183	56nF 10% 50V
2642	4822 122 32183	56nF 10% 50V
2645	4822 122 32863	22nF 20% 63V
2646	4822 122 33104	100nF 10% 63V
2651	4822 122 32863	22nF 20% 63V
2652	4822 122 32863	22nF 20% 63V
2653	4822 124 40849	330µF 20% 16V
2654	4822 124 41527	47µF 20% 25V
2664	4822 121 51111	2,4nF 2% 250V
2665	4822 121 51111	2,4nF 2% 250V
2666	4822 121 42783	2,2nF 2% 250V
2667	4822 121 42783	2,2nF 2% 250V
2668	4822 121 43066	1nF 1% 400V
2669	4822 121 43066	1nF 1% 400V
2670	4822 124 41528	100µF 20% 25V
2671	4822 124 41528	100µF 20% 25V
2673	4822 124 22339	100µF 20% 16V
2674	4822 124 41528	100µF 20% 25V
2675	4822 124 41528	100µF 20% 25V
2676	4822 122 33104	100nF 10% 63V
2677	4822 122 33104	100nF 10% 63V
2678	4822 122 33104	100nF 10% 63V
2679	4822 122 33104	100nF 10% 63V
2680	4822 122 33104	100nF 10% 63V
2681	4822 122 33104	100nF 10% 63V
2682	4822 122 33104	100nF 10% 63V
2683	4822 122 33104	100nF 10% 63V
2684	4822 122 33104	100nF 10% 63V
2685	4822 122 33104	100nF 10% 63V
2686	4822 122 33104	100nF 10% 63V
2687	4822 122 33104	100nF 10% 63V
2688	4822 122 33104	100nF 10% 63V
2689	4822 122 33104	100nF 10% 63V
2690	4822 124 41334	470µF 20% 35V
2691	4822 121 51252	470nF 5% 63V
2692	5322 121 42386	100nF 5% 63V
2693	4822 122 32863	22nF 20% 63V
2695	4822 124 41558	10µF 20% 25V
2696	4822 121 51225	18nF 2% 63V
2697	4822 121 51361	5,6nF 2% 160V
2698	4822 121 51361	5,6nF 2% 160V
2699	4822 121 51225	18nF 2% 63V
2700	4822 124 22339	100µ 20% 16V

2703	4822 124 41859	330µF 20% 35V
2704	4822 124 41527	47µF 20% 25V
2705	4822 122 32863	22nF 20% 63V
2706	4822 122 32863	22nF 20% 63V
2707	4822 124 41591	6800µF 20% 16V
2708	4822 124 40272	33µF 20% 16V
2709	4822 122 32863	22nF 20% 63V
2710	4822 122 32863	22nF 20% 63V
2711	4822 124 41853	1000µF 20% 16V
2712	4822 124 40272	33µF 20% 16V
2713	4822 124 41334	470µF 20% 35V
2714	4822 124 41527	47µF 20% 25V
2715	5322 121 42386	100nF 10% 63V
2716	5322 124 21643	22µF 20% 40V

3501	5322 116 80445	4,7kΩ 5% 0,125W
3502	5322 116 80429	100kΩ 5% 0,125W
3503	4822 111 30499	4,7Ω 5% 0,33W
3504	4822 111 30499	4,7Ω 5% 0,33W
3505	4822 111 90253	12kΩ 2% 0,125W
3506	4822 116 52389	100Ω 5% 0.5W
3507	5322 116 80427	1kΩ 5% 0,125W
3508	4822 111 90512	24kΩ 5% 0,125W
3509	4822 116 81208	5,6kΩ 5% 0,125W
3510	4822 111 90249	10kΩ 5% 0,125W
3520	4822 101 10685	4,7kΩ 20% LIN 0.05W Trimpot
3521	4822 116 52849	220Ω 5% 0,6W
3522	4822 111 30515	18Ω 5% 0,33W
3523	4822 111 30511	12Ω 5% 0,33W
3524	5322 116 80426	100Ω 5% 0,125W
3530	4822 116 52857	47kΩ 1% 0,33W
3531	4822 116 53083	15kΩ 1% 0,33W
3533	5322 111 90268	5,1kΩ 2% 0,125W
3534	4822 111 90197	220kΩ 5% 0,125W
3535	4822 116 53081	12kΩ 1% 0,6W
3539	4822 111 90251	22kΩ 5% 0,125W
3540	4822 111 30499	4,7Ω 5% 0,33W
3541	4822 111 90544	6,8kΩ 2% 0,125W
3542	4822 111 90357	33Ω 5% 0,125W
3543	4822 111 90544	6,8kΩ 2% 0,125W
3545	4822 111 30483	1Ω 5% 0,33W
3546	4822 111 30483	1Ω 5% 0,33W
3552	5322 111 90101	1,8kΩ 5% 0,125W
3555	4822 111 90238	18kΩ 5% 0,125W
3557	4822 111 90197	220kΩ 5% 0,125W
3560	4822 111 91494	11kΩ 2% 0,125W
3561	4822 116 90417	150kΩ 2% 0,125W
3562	4822 111 90568	120kΩ 2% 0,125W
3563	4822 111 90573	56kΩ 2% 0,125W
3564	4822 111 91495	160kΩ 2% 0,125W
3565	5322 111 90105	27Ω 5% 0,125W
3566	4822 116 81206	22Ω 5% 0,125W
3567	4822 111 90575	82kΩ 2% 0,125W
3568	4822 100 11193	22kΩ 20% LIN 0,05W Trimpot
3569	4822 111 90368	680kΩ 5% 0,125W
3574	5322 116 80441	33kΩ 5% 0,125W
3575	5322 116 80445	4,7kΩ 5% 0,125W
3576	4822 116 52848	200kΩ 1% 0,6W
3578	4822 111 90575	82kΩ 5% 0,125W
3579	4822 116 90417	150kΩ 2% 0,125W
3580	4822 116 52921	4,7kΩ 5% 0,5W
3581	4822 116 53105	3,3kΩ 1% 0,6W
3582	4822 111 90572	5,6kΩ 2% 0,125W
3584	4822 111 91492	91kΩ 2% 0,125W

3585	4822 111 90214	100kΩ 2% 0,125W
3586	4822 111 90368	680kΩ 5% 0,125W
3588	4822 116 52472	47kΩ 5% 0.5W
3589	5322 116 80445	4,7kΩ 5% 0,125W
3591	5322 111 90096	1,2kΩ 2% 0,125W
3600	4822 111 90248	2,2kΩ 5% 0,125W
3602	4822 111 90251	22kΩ 5% 0,125W
3603	4822 111 90371	75Ω 5% 0,125W
3604	4822 111 30499	4,7Ω 5% 0,33W
3605	5322 111 90265	1,6kΩ 5% 0,125W
3607	4822 111 90571	3,9kΩ 5% 0,125W
3609	4822 111 30499	4,7Ω 5% 0,33W
3610	4822 111 90373	9,1kΩ 5% 0,125W
3611	4822 111 90366	620Ω 5% 0,125W
3613	4822 111 90251	22kΩ 5% 0,125W
3627	4822 111 30499	4,7Ω 5% 0,33W
3628	4822 111 90251	22kΩ 5% 0,125W
3629	4822 111 90197	220kΩ 5% 0,125W
3638	4822 111 90251	22kΩ 5% 0,125W
3639	4822 111 90251	22kΩ 5% 0,125W
3640	4822 111 90251	22kΩ 5% 0,125W
3642	4822 111 90251	22kΩ 5% 0,125W
3645	5322 116 80445	4,7kΩ 5% 0,125W
3646	4822 111 90251	22kΩ 5% 0,125W
3647	4822 111 90251	22kΩ 5% 0,125W
3650	4822 111 30483	1Ω 5% 0.33W
3651	4822 111 90197	220kΩ 5% 0,125W
3652	4822 111 30499	4,7Ω 5% 0,33W
3653	4822 116 81168	560Ω 5% 0,5W
3657	4822 111 30499	4,7Ω 5% 0,33W
3658	4822 111 30508	10Ω 5% 0,33W
3659	4822 116 52921	4,7kΩ 5% 0.5W
3665	5322 116 53478	1,5kΩ 1% 0,5W
3666	5322 116 53478	1,5kΩ 1% 0,5W
3667	4822 111 30511	12Ω 5% 0,33W
3668	4822 111 30511	12Ω 5% 0,33W
3669	4822 116 90271	2,4kΩ 2% 0,33W
3670	4822 116 90271	2,4kΩ 2% 0,33W
3671	4822 116 90271	2,4kΩ 2% 0,33W
3672	4822 116 90271	2,4kΩ 2% 0,33W
3673	4822 111 30511	12Ω 5% 0,33W
3674	4822 111 30511	12Ω 5% 0,33W
3675	4822 111 90249	10kΩ 5% 0,125W
3676	4822 111 90249	10kΩ 5% 0,125W
3677	5322 116 80426	100Ω 5% 0,125W
3678	5322 116 80426	100Ω 5% 0,125W
3679	5322 111 90091	100Ω 5% 0,125W
3680	5322 111 90091	100Ω 5% 0,125W
3681	5322 116 80431	150Ω 5% 0,125W
3682	5322 116 80431	150Ω 5% 0,125W
3701	5322 116 80445	4,7kΩ 5% 0,125W
3702	4822 111 90425	5,6MΩ 5% 0,125W
3703	5322 111 90108	39kΩ 5% 0,125W
3704	5322 111 90096	1,2kΩ 5% 0,125W
3705	4822 116 81168	56kΩ 5% 0,125W
3706	5322 111 90096	1,2kΩ 5% 0,125W
3707	5322 111 90096	1,2kΩ 5% 0,125W
3708	5322 111 90096	1,2kΩ 5% 0,125W
3710	5322 111 90099	150kΩ 5% 0,125W
3720	4822 051 10102	1kΩ 5% 0,125W
3721	4822 111 90543	47kΩ 5% 0,125W
3724	4822 116 53081	12kΩ 1% 0,6W
3725	4822 111 90253	12kΩ 2% 0,125W
3728	4822 116 81208	5,6kΩ 5% 0,125W
3729	4822 116 53081	12kΩ 1% 0,6W
3730	4822 111 90253	12kΩ 2% 0,125W
3731	4822 116 81206	22Ω 5% 0,125W
3732	4822 116 52849	3,9kΩ 5% 0,6W

3736	4822 116 80429	100kΩ 5% 0,125W
3737	4822 111 90249	10kΩ 5% 0,125W
3738	4822 116 80429	100kΩ 5% 0,125W
3739	4822 111 90425	5,6MΩ 5% 0,125W
3740	4822 116 52864	820Ω 1% 0,6W
3743	4822 111 90425	5,6MΩ 5% 0,125W
3744	4822 116 52864	820Ω 1% 0,6W
3745	4822 111 90425	5,6MΩ 5% 0,125W
3747	4822 111 90249	10kΩ 5% 0,125W
3748	4822 111 90571	3,9kΩ 5% 0,125W
3775	5322 116 80445	4,7kΩ 5% 0,125W
3776	4822 111 90425	5,6MΩ 5% 0,125W
3801	4822 111 90163	jumper
3803	4822 111 90163	jumper
3804	4822 111 90163	jumper
3805	4822 111 90163	jumper
3807	4822 111 90163	jumper
3808	4822 111 90163	jumper
3809	4822 111 90163	jumper
3811	4822 111 90163	jumper
3812	4822 111 90163	jumper
3813	4822 111 90163	jumper
3814	4822 111 90163	jumper
3819	4822 111 90163	jumper
3820	4822 111 90163	jumper
3821	4822 111 90163	jumper
3822	4822 111 90163	jumper
3823	4822 111 90163	jumper
3824	4822 111 90163	jumper
3825	4822 111 90163	jumper
3826	4822 111 90163	jumper
3827	4822 111 90163	jumper
3828	4822 111 90163	jumper
3829	4822 111 90163	jumper
3830	4822 111 90163	jumper
3831	4822 111 90163	jumper
3832	4822 111 90163	jumper
3833	4822 111 90163	jumper
3834	4822 111 90163	jumper
3835	4822 111 90163	jumper
3836	4822 111 90163	jumper
3837	4822 111 90163	jumper
3838	4822 111 90163	jumper
3839	4822 111 90163	jumper
3840	4822 111 90163	jumper
3842	4822 111 90163	jumper
3843	4822 111 90163	jumper
3844	4822 111 90163	jumper
3845	4822 111 90163	jumper
3847	4822 111 90163	jumper
3848	4822 111 90163	jumper
3851	4822 111 90163	jumper
3852	4822 111 90163	jumper
3854	4822 111 90163	jumper
3855	4822 111 90163	jumper
3856	4822 111 90163	jumper
3860	4822 111 90163	jumper
3861	4822 111 90163	jumper
3864	4822 111 90163	jumper
3865	4822 111 90163	jumper
3866	4822 111 90163	jumper
3872	4822 111 90163	jumper
3873	4822 111 90163	jumper
3874	4822 111 90163	jumper

5502	4822 157 53141	coil 470µH
5503	4822 157 53141	coil 470µH

6500	4822 209 72587	TCA0372DP2
6501	4822 209 73234	TDA8808T/C3
6502	4822 130 44121	BC338
6503	4822 209 73235	TDA8809T/C2
6504	4822 209 72587	TCA0372DP2
6505	4822 130 34173	BZX55-C5V6
6506	4822 130 34173	BZX55-C5V6
6511	4822 130 31456	BZV85-C5V1
6512	4822 209 83274	NJM4560D
6516	5322 130 42012	BC858
6517	5322 130 42012	BC858
6519	5322 130 30684	1N4002
6520	4822 130 42131	BF550
6523	4822 209 70422	MN4264-15
6530	4822 209 61957	MC68HC05C8P/ZC99702
6531	4822 130 42675	BC818
6535	5322 209 83163	LM833N
6536	5322 209 83163	LM833N
6540	4822 209 72545	SAA7220
6541	4822 209 72544	TDA1541
6542	4822 130 42675	BC818
6543	4822 130 42675	BC818
6544	4822 130 42675	BC818
6545	4822 130 42675	BC818
6546	4822 209 83274	NJM4560D
6547	5322 130 30684	1N4002
6548	5322 130 30684	1N4002
6549	4822 209 61759	SAA7310GP/S5
6550	5322 130 30684	1N4002
6551	5322 130 30684	1N4002
6552	4822 130 30621	1N4148
6553	4822 130 30621	1N4148
6554	4822 130 42513	BC858C
6555	4822 130 31981	BZX55-C3V9
6556	4822 130 61207	BC848
6557	4822 130 30621	1N4148
6558	4822 130 44121	BC338
6559	4822 130 61207	BC848
6561	4822 209 60803	SN74LS08D
6562	4822 130 61207	BC848
6563	5322 130 42012	BC858
6564	4822 130 42633	BSR56
6565	4822 130 42633	BSR56
6568	4822 130 61207	BC848
6573	4822 130 34167	BZX55-C6V2
6577	5322 130 41899	MC7915CT
6580	5322 130 30684	1N4002
6581	5322 130 30684	1N4002
6582	5322 130 30684	1N4002
6583	5322 130 30684	1N4002
6584	5322 130 30684	1N4002
6585	5322 130 30684	1N4002
6586	5322 130 30684	1N4002
6587	5322 130 30684	1N4002
6590	4822 209 80808	MC78M15CT
6591	4822 209 71579	TY40408
6592	4822 209 82056	MC7906CT
6593	5322 130 41899	MC7915CT
6601	4822 130 31983	BAT85
6602	5322 130 30684	1N4002
6603	5322 130 30684	1N4002

ELECTRICAL PARTSLIST CONTROL & DISPLAY PANEL

Switch

SK..	4822 276 12276	TACT SWITCH 9,5MM
SK11	4822 276 20463	SWITCH ASSY SPPH2136

Miscellaneous

BU-3	4822 267 30743	PHONE SOCKET
1100	4822 214 51772	IR RECEIVER GP1U521X
1101	4822 242 71508	CER RESONATOR 6MHz
1102	4822 130 90667	FL DISPLAY 9BY-02GK

2100	4822 124 22027	47µF 20% 25V
2101	4822 122 32444	33pF 5% 50V
2102	4822 122 32444	33pF 5% 50V
2104	4822 122 33147	22nF 20% 63V
2105	4822 124 22027	47µF 20% 25V
2106	4822 122 10166	22nF 30% 16V

3100	5322 111 91484	RST NETWORKS 4609X
3101	5322 111 91484	560Ω 1% 0,2W
3130	4822 111 30499	4Ω7 5% 0,33W
3131	5322 116 80446	47kΩ 5% 0,33W
3132	4822 111 90124	82Ω 5% 0,33W
3133	5322 116 80427	1kΩ 5% 0,33W
3134	4822 111 90366	620Ω 5% 0,33W
3135	4822 111 90249	10kΩ 5% 0,33W
3151	4822 111 30499	4Ω7 5% 0,33W
3160	4822 111 90124	82Ω 5% 0,33W
3161	5322 116 80427	1k 5% 0,33W
3162	4822 111 90366	620Ω 5% 0,33W

3801	4822 111 90163	jumper
3802	4822 111 90163	jumper
3803	4822 111 90163	jumper
3804	4822 111 90163	jumper
3805	4822 111 90163	jumper
3806	4822 111 90163	jumper

6501	4822 209 61191	TMP47C670N/...
6502	4822 209 60886	UND-2580A
6503	4822 209 60886	UND-2580A
6518	4822 130 30613	BAW62
6519	4822 130 30613	BAW62
6520	4822 130 30613	BAW62
6521	4822 130 30613	BAW62
6522	4822 130 30613	BAW62
6523	4822 130 30613	BAW62
6524	4822 130 30613	BAW62
6525	4822 130 30613	BAW62
6526	4822 130 30613	BAW62
6528	4822 130 80849	LED TLHR4499 (RED)
6529	4822 130 80848	LED TLHR4499 (GREEN)
6530	4822 130 61207	BC848
6531	4822 130 61207	BC848

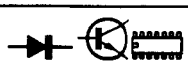
F.T.S. PANEL

Miscellaneous

1401	4822 242 71222	12MHz Crystal

2401	4822 124 40272	33µF 20% 16V
2402	4822 122 10166	22nF 30% 16V
2403	4822 124 41578	6,8µF 20% 50V
2404	4822 122 10179	33pF 5%
2405	4822 122 10179	33pF 5%
2406	4822 122 10166	22nF 30% 16V
2408	4822 122 10166	22nF 30% 16V

3401	4822 111 30483	1Ω0 5% 0,33W
3402	4822 116 52452	10kΩ 5% 0,33W
3403	4822 116 52452	10kΩ 5% 0,33W
3405	5322 116 52426	4,7kΩ 5% 0,33W
3406	4822 116 52461	18kΩ 5% 0,33W
3407	4822 116 52461	18kΩ 5% 0,33W
3408	4822 116 52463	22kΩ 5% 0,33W
3409	4822 116 52463	22kΩ 5% 0,33W
3410	4822 116 52527	470kΩ 5% 0,33W
3411	4822 116 52527	470kΩ 5% 0,33W
3412	4822 116 52463	22kΩ 5% 0,33W
3413	4822 116 52463	22kΩ 5% 0,33W
3414	4822 116 52463	22kΩ 5% 0,33W
3415	4822 116 52463	22kΩ 5% 0,33W
3416	4822 116 52463	22kΩ 5% 0,33W



6401	4822 130 30621	1N4148
6402	4822 130 34233	BZX55-C5V1
6403	4822 130 40938	BC548
6404	5322 130 40941	BC558
6405	5322 209 11118	PC74HCT373P
6407	4822 209 72102	EEPROM X2816BP
6408	4822 130 40938	BC548
6409	4822 130 40938	BC548
6410	4822 209 61679	PCB83C654P/AC005

VARIABLE LINE OUT PANEL

Miscellaneous

BU-4	4822 267 30878	CINCH SOCKET 2P

2101	4822 124 41527	47µF 20% 25V
2102	4822 124 41528	100µF 20% 25V
2103	4822 124 41528	100µF 20% 25V
2104	4822 124 41528	100µF 20% 25V
2105	4822 124 22339	100µF 20% 16V
2106	4822 124 22339	100µF 20% 16V
2107	4822 124 22339	100µF 20% 16V
2108	4822 124 22339	100µF 20% 16V

3101	4822 116 52437	5,1kΩ 5% 0,33W
3102	4822 116 52413	2,7kΩ 5% 0,33W
3103	4822 111 30517	22Ω 5% 0,33W
3104	4822 111 30517	22Ω 5% 0,33W
3105	4822 116 52452	10kΩ 5% 0,33W
3106	4822 116 52452	10kΩ 5% 0,33W

6101	4822 214 51724	DVR-3

MISCELLANEOUS

1501	4822 253 30009	FUSE T 160 mA
1501	4822 253 30217	FUSE T 300mA
5001	4822 146 21441	MAINSTRANSFORMER

Modifications with A90-106

PAGE	REASON
Frontpage	Frontpage adapted
2-1a	Adapted
3-2a	Exploded view adapted
	Mechanical partslist updated
4-1a	New laser current adjustment
5-1a	Correction
5-2a	Adapted to the changes
5-3a	Adapted to the changes
5-4a	Correction
5-5a	Correction
9-1a	Parts list updated
9-2a	Parts list updated
9-3a	Parts list updated
9-4a	Parts list updated
9-5a	Parts list updated
10-1	Modifications added